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REPORT

OF THE

COMMISSIONER OF EDUCATION

FOR

THE YEAR ENDED JUNE 30, 1914

VOLUME I

WASHINGTON
GOVERNMENT PRINTING OFFICE
1915

THE UNITED STATES
BUREAU OF EDUCATION,

Created as a Department March 2, 1867,

Made an Office of the Interior Department July 1, 1869.

COMMISSIONERS.

HENRY BARNARD, LL. D.,
March 14, 1867, to March 15, 1870.

JOHN EATON, PH. D., LL. D.,
March 16, 1870, to August 5, 1886.

NATHANIEL H. R. DAWSON, L. H. D.,
August 6, 1886, to September 3, 1889.

WILLIAM T. HARRIS, PH. D., LL. D.,
September 12, 1889, to June 30, 1906.

ELMER ELLSWORTH BROWN, PH. D., LL. D.,
July 1, 1906, to June 30, 1911.

PHILANDER PRIESTLEY CLAXTON, LITT. D., LL. D.,
July 8, 1911, to date.

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REPORT OF THE COMMISSIONER OF EDUCATION.

DEPARTMENT OF THE INTERIOR,
BUREAU OF EDUCATION,
Washington, June 8, 1915.

SIR: I have the honor to transmit herewith the report of the Commissioner of Education for the fiscal year ended June 30, 1914, to be published in two volumes. The first volume of this report will contain a brief interpretative review of the progress of education in the United States within the year and a still briefer report of the most important phases of progress in education in foreign countries. The second volume will contain statistics of education for the year within the United States. Neither part of the first volume is as complete as it should be; several important topics of education in this country have been omitted because the bureau had on its staff no specialists in these departments and had no funds with which to employ other persons to write these chapters. The report from other countries can never be made as complete as it should be until the bureau has more experts in foreign school systems, a much larger corps of translators, funds to pay the expenses of investigations in foreign countries, and reasonable stipends to expert correspondents. It is not necessary to emphasize the importance of having once each year a complete and accurate interpretative survey of all important work in education in all parts of the world. Without it we may not hope to obtain the best results from our systems of schools and other agencies of education nor to obtain the fullest results from the money invested in them. Every problem in education has come to be international. The work of the humblest district school should be done in the light of all the knowledge of education the world has been able to gain. The statistics of the second volume can never be made complete and accurate until it is made possible for the bureau to send expert statisticians to State and city education offices and to the several institutions of learning of which reports are made. I know of no other agency that attempts to compile accurately so large a body of important statistics without such expert agents in the field.

That the tendency toward democracy in education for the service of democratic, political, civic, social, and industrial life continues is shown clearly by the several chapters of this report. In this country we shall never be satisfied until we have assured to each child that kind and degree of education necessary for the fullest and most perfect development of its humanity, for the complete life of manhood

or womanhood, for the intelligent performance of the duties of citizenship, and for making an honest living by intelligent and skilled labor of some kind. A desire for such education for all the children of all the people is growing more or less rapidly in all countries of the world. At last the world is beginning to understand that all children, whatever their birth or condition, have certain rights which become obligations for society and state, and that chief among these is the right of education. The world is also becoming conscious of the fact that neither society nor state can ever attain to its best until every individual unit of it has attained unto its best. The first duty of a democratic state certainly is to provide equal and full opportunity of education for all its children.

WORK OF THE BUREAU OF EDUCATION.

The work of the bureau is itself not an unimportant part of the educational life of the country. More and more do education officers, teachers, and people look to it for information, advice, and help in working out their problems and promoting education in all its forms. For this reason they are interested in its organization, support, purposes, and work. In the near future I purpose to submit for publication a manuscript covering in detail the first three items. A brief account of some of the more important features of its development and work for the fiscal year covered by this report follows as a part of this introduction. To this are appended the recommendations contained in the Statement of the Commissioner of Education to the Secretary of the Interior for the fiscal year ended June 30, 1914.

Within the year two new divisions were established, the Division of Civic Education and the Division of Education of Immigrants; the first in cooperation with the National Municipal League, the second in cooperation with the North American Civic League. The Division of Home Education, maintained in cooperation with the National Congress of Mothers and Parent-Teacher Associations, was enlarged. Since the beginning of the current fiscal year, there have been established two other divisions: The Division of Vocational Education, including trade and industries, with one specialist, and education for home-making with two specialists, and the Division of School and Home Gardening with three specialists. In the maintenance of the School and Home Gardening Division the bureau has the cooperation of the International Child Welfare League. The Division of Rural Education was enlarged by the addition of one specialist within the fiscal year covered by this report, and has been further enlarged within the current fiscal year by the addition of two assistants. There have also been added within the current fiscal year a translator and four clerks. These additions to the working force of the bureau within the current fiscal year were made possible by an

increase of $30,600 in the annual appropriations made by Congress for its support.

The Division of Higher Education studied recent developments in the universities of England, Ireland, Scotland, and Wales; the preparation of teachers for secondary schools in Germany, France, and England; science teaching in the secondary schools of the United States; and standards of universities, colleges, normal schools, and secondary schools in the United States. A representative of the bureau spent one or more weeks at each of the more important universities of the British Isles. Dr. Charles H. Judd, of the school of education, University of Chicago, who held the position of specialist in higher education for several months at the beginning of the fiscal year, visited schools for the preparation of secondary teachers in Germany, France, and England, and made a careful investigation of their courses of study, both academic and professional, and of their examinations and standards of qualification. Dr. Otis W. Caldwell, of the University of Chicago, held a temporary appointment in the division, and made a personal inspection of the teaching of science in some of the more important schools in the Southern States. Dr. S. P. Capen, of Clark University, was appointed specialist in higher education and assigned to this division as chief of the division February 1, 1914. Before the end of the fiscal year he visited and inspected 29 colleges and universities; at the request of The Adjutant General of the War Department, he rendered a decision as to the eligibility of about 350 universities, colleges, and schools for inclusion in the list of institutions to be accredited by the United States Military Academy; and he attended and took part in ten educational conferences of associations interested in higher education. In person or by correspondence he consulted with the representatives of all the large national associations directly interested in higher education as to the best methods of listing colleges and universities in respect to their standards and efficiency, and with the cooperation of these associations began the organization of a committee which has since held a meeting in the office of the Commissioner of Education and organized itself for a careful study of the work for which it was formed. The committee consists of the following:

Prof. Walter Ballou Jacobs, *New England Association of Colleges and Secondary Schools.*

Commissioner John H. Finley, *Association of Colleges and Preparatory Schools of the Middle States and Maryland.*

Prof. Bert E. Young, *Association of Colleges and Secondary Schools of the Southern States.*

Prof. H. A. Hollister, *North Central Association of Colleges and Secondary Schools.*

Dean R. D. Salisbury, *Association of American Universities.*

Chancellor Samuel Avery, *National Association of State Universities.*

Dr. N. P. Colwell, *American Medical Association.*

President Charles S. Howe, *Society for the Promotion of Engineering Education.*

President D. J. Cowling, *Association of American Colleges.*

The specialist in higher education also cooperated with a committee of the Association of Collegiate Registrars in a criticism and reconstruction of methods of recording college activities and the statistical forms of the Bureau of Education; began the preparation of a scheme for the tabulation of the college curriculum, the completion of which will enable the Bureau of Education to determine with greater facility questions relating to the quality and standing of any given institution of higher education; and began a series of higher-education letters to be sent to universities, colleges, normal, professional, and technical schools, nine of which were prepared and mailed before the end of the fiscal year.

This division examined and certified as to the accuracy of the reports of the land-grant colleges receiving aid under the acts of Congress of August 30, 1890, and March 4, 1907; made a special examination of the methods of accounting in use in three land-grant colleges for negroes, and as a result of this examination is suggesting for all the institutions of this class a more efficient method of accounting. Six land-grant colleges were visited, and the division examined in detail one of these colleges at the request of its officials and made a detailed report of the findings.

Within the year the Division of School Administration collected and prepared for publication important statistics in regard to school administration in 1,300 towns and cities having a population between 2,500 and 30,000. It also collected and compiled information in regard to school savings banks, information on departmental teaching, and information in regard to the duties and work of superintendents in small cities. It prepared for publication as bulletins of the bureau manuscripts on Compulsory Attendance; Special Features in City Schools; Legislation and Judicial Decisions of the Years 1910–1912; Legislation and Judicial Decisions of 1913; and Administration of State Systems of Education. The division also began a complete digest of all the school laws of all the States, Territories, and dependencies of the United States, which has been continued and completed within the current fiscal year. There is much need for such a digest, and this will shortly be published as a bulletin of the bureau.

This division issued 16 circular letters on various phases of city school work and 6 circular letters of information on important school legislation considered and enacted during the year. The chief of this division visited and studied the schools of 22 cities in 10 different States, and assisted in making a survey of the schools of the city of Ogden, Utah.

During the month of August, 1913, the special agent in school hygiene and sanitation assembled and installed Part I of the scientific exhibit of the Fourth International Congress on School Hygiene

held at Buffalo, N. Y. This part of the exhibit received much attention from people from all parts of the world, and the permanent international committee of the congress voted to recommend that similar exhibits be made at future congresses. The Division of School Hygiene and Sanitation completed studies of methods and means of health teaching in the United States, and of buildings and grounds for rural schools, and began studies of open-air schools and school baths, both of which have since been completed. It also made a supplementary study of American school architecture, and prepared a bibliography of school hygiene, including summaries of scientific work gathered for the Fourth National Congress on School Hygiene. Cardboard models of rural schoolhouses were sent on request to many school boards and exhibited at a number of educational associations. It is believed that the value of these models in calling attention to the urgent need of better school buildings has been great.

In the division of rural education one specialist devoted most of his time to the study of rural education in the Southern States and in conference with State, county, and local authorities in these States. He attended conferences in Alabama, Arkansas, Georgia, Kansas, Kentucky, Louisiana, Mississippi, Nebraska, Tennessee, Virginia, Maryland, and other States, and aided in organizing the national conference of State supervisors and inspectors of rural schools held at Louisville, Ky., under the direction of this bureau.

Another specialist spent most of the year in the States of the far West. In Utah he studied the relative merits of county supervision and district supervision in two adjacent counties and the organization of schools in agricultural villages and small towns. In this and other Western States he studied the rural high schools and the means adopted for bringing school and home into closer cooperation. In the course of these studies he visited approximately 300 rural schools and attended approximately 100 meetings of parent-teacher associations and school-improvement leagues and attended 48 meetings of State and county associations and institutes.

Still another specialist spent the year in the Middle West, visited schools, and attended meetings of teachers and school officers in Colorado, Mississippi, Louisiana, and Texas. He prepared reports of his investigations of the schools of Minnesota, Colorado, and Illinois, and prepared for publication four bulletins on the rural schools of Denmark, giving the results of an investigation of these schools made by himself and two special collaborators of the bureau in the spring of 1913.

The fourth specialist made a study of consolidated schools and public transportation of pupils, and prepared the results of this study for

publication as a bulletin of the bureau, directed the preparation of reports on education in the Appalachian Mountain region of the South and on special work of county superintendents. In March, April, and May he visited the British Isles and made a study of rural education in England, Scotland, and Ireland, with special reference to the work of continuation schools in rural communities, agricultural education, and education for home making in regular and village schools.

All of these specialists attended State, county, and local meetings of school officers, teachers, and citizens held in different parts of the country for the discussion and consideration of the organization, management, and support of rural schools, and gave much valuable assistance.

The division prepared and has in circulation nine duplicate sets of lantern slides on consolidated and rural schools and transportation at public expense. Each set is accompanied by a typewritten outline lecture and by printed material for further information. These slides have been sent to county superintendents and others interested in rural schools, and have been in constant use. Many more such sets are needed to supply requests for them.

The division issued periodically a rural-school letter, which was sent to all State, county, and township superintendents, rural-school inspectors, and others who have to do with the administration of rural schools. These letters are made up of brief reports of interesting experiments and developments in the work of rural schools.

The Kindergarten Division of this bureau, established in the spring of 1913, in cooperation with the National Kindergarten Association, has already developed into an important agency for the promotion of the education of young children. There are in the United States approximately 4,000,000 children between 4 and 6, which is ordinarily considered the kindergarten age. While some formal education in the kindergarten or elsewhere would be helpful for all or most of these, the home conditions of at least half of them are such as to make the demand for such education for them imperative. Only about 300,000 of these children are enrolled in the public and private kindergartens, and probably not more than 2,000 or 3,000 in Montessori schools and other schools for the education of children under the public-school age. There is little hope of reaching these children except by making the kindergarten a part of the public-school system in every city, town, and village. By doing this, not only would two years be added to the period of education of millions of children whose educational life must at best be all too short, but a beginning in the formation of moral and social habits could be made, not possible later, and much could be added to the individual development of the children in these very important years of their lives. The kindergarten has a special and unique value for the hundreds of thousands of foreign-born chil-

dren and children of recent immigrants to this country and for negro children.

During the year this division made a survey of public and private kindergartens and kindergartens in manufacturing villages and in benevolent institutions in the United States. The results of this survey have been published as a bulletin of the bureau. With the assistance of a committee of 20 experts, members of the International Kindergarten Union, the division made a study of all the kindergarten training schools of the country, about 200 in number, and has since prepared the results of this study for publication. The division also made studies and digests of the work of the kindergarten and primary grades of the public schools. In this study it made inquiries as to the double sessions in 92 cities. Primary teachers in 114 and kindergarten teachers in 40 cities were asked for information and opinions as to changes needed in the kindergarten work and in the primary grades. The results of this study have been summarized for publication in a bulletin of the bureau. The division also collected from training teachers, supervisors, and directors of kindergartens and others photographs and plans of kindergarten buildings and equipment for kindergarten classes, which material, before the close of the fiscal year, was used in the preparation of a bulletin on kindergarten buildings, rooms, and equipment. A digest was made of the laws pertaining to public-school kindergartens and the qualifications of kindergarten teachers in the 48 States. Numerous inquiries have been answered with regard to State laws relating to kindergartens, methods of creating public sentiment for the extension of kindergarten work, plans of buildings and equipment for kindergartens, location of training schools for kindergarten teachers, the value of the kindergarten as a part of the public-school system, the relative value of the single and double daily sessions for kindergartens, the difference between the kindergarten and the Montessori schools for small children, etc. A kindergarten exhibit was made at several expositions and State fairs and at the meetings of educational associations. Two lantern-slide lectures on kindergartens were circulated; speakers were sent to conventions, and on request assisted in campaigns for the establishment of kindergartens; several demonstration kindergartens were established.

The specialist and assistants in negro education visited and inspected negro schools in the States of Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, South Carolina, and Texas, and made comprehensive studies of each school visited. The more important schools of Kentucky, Kansas, Oklahoma, and Missouri were also visited and inspected. The aggregate value of the property of the 400 schools visited was found to be $12,500,000, their annual income a little less than $3,000,000. They have approxi-

mately 75,000 pupils, of whom 15,000 are reported as pursuing secondary subjects. As a result of these studies this bureau now has descriptive statements of each of these schools, showing location and type of school, attendance, training and sex of teachers, character and organization of work, financial condition and management, condition and upkeep of the plant, and relation of the school community to whites and negroes. On this basis have been prepared recommendations of changes and improvements which the studies indicate to be necessary. For each of the States two tables have been made showing the private and public school facilities for colored children in each county. Incidental to the main work of this survey some constructive work was done in the schools visited. This included improvements in the accounting systems of the schools, in cleanliness and sanitation of dormitories, and in increase of interest in those elements of education that are especially needed in the rural sections.

American children are in school less than 4 per cent of their time from birth to 21 years of age. The home, the primitive and primary institution for the education of children, is still the most important agency for education for life—physical, mental, moral, industrial, economic, social, civic. The school is still only supplementary. Any agency, therefore, that would promote right education most effectually must find some means of cooperating with the home and of helping parents, who are the most constant, and should be the most effective, teachers of their children.

It was for this purpose that the Home Education Division of the Bureau of Education was formed in May, 1913, in cooperation with the National Congress of Mothers and Parent-Teacher Associations. Its aim is to investigate means and methods of improving education in the home, to assist parents in directing the play of their young children, promoting their early mental development, fostering the formation of right moral habits and establishing their physical health, the latter probably the most important element in education for life and efficient living. It also aims to bring about a more intelligent cooperation between the home and the school, so that both may work together intelligently for the welfare of the children and to extend the education of boys and girls who have quit school, by stimulating and directing their home reading and study.

Through the cooperation of county school superintendents this division obtained within the year the names of 23,930 intelligent and influential women in 949 counties, each living near a country or village school, and invited their cooperation in carrying out its aims. This list has been much enlarged within the current year. It is hoped that the division may be able to obtain the cooperation of at least one such woman in the neighborhood of every rural school in the United States. Since the organization of this division many parent-

teacher associations have been organized, circulars of information have been distributed, and brief courses of reading for parents, children, and older boys and girls recommended. Six extensive courses of reading for children of different ages have been prepared and distributed. Plans are in preparation by which boards of education and State school officers will cooperate in the promotion of this work. In the preparation of these reading courses the bureau has had the assistance of a cooperating committee of special collaborators, consisting of C. Alphonso Smith, Edgar Allen Poe professor of English in the University of Virginia; Charles Forster Smith, professor of Greek in the University of Wisconsin; Richard Burton, professor of English in the University of Minnesota; and William L. Phelps, professor of English literature in Yale University; and of several collaborators especially interested in literature for children. The division has also prepared, for distribution, lists of lantern slides of educational value, suitable for use in parent-teacher associations and other similar societies.

Education begins at birth, and the first years of life are the most important. Loss of life or health, arrest of development, the formation of vicious habits, or the acquirement of false ideas and ideals in these years may render impossible or ineffective all efforts at education in later years. Realizing the supreme importance of the proper care of children in these earliest years, the division of home education obtained within the year the names of more than 10,000 mothers of children under 3 years old and prospective mothers who needed advice in regard to the care of their children and corresponded with them or sent them helpful printed matter. To 6,626 of these were sent copies of a bulletin of the United States Public-Health Service, "On the Care of Babies," donated to the bureau for this purpose. This work has been much enlarged within the current fiscal year. In this work the bureau has also had valuable assistance from the executive committee of the American Medical Association.

The Home Education Division has two offices, one in the city of Washington and one in Philadelphia. The office in Washington is under the immediate direction of the secretary of the division. The Philadelphia office is under the direction of a special collaborator of the bureau, who is also general director of the division.

The Division of Civic Education was established in March, 1914, in cooperation with the National Municipal League. The purpose of this division is to investigate methods of teaching, in the schools and elsewhere, those things that pertain directly to the duties and responsibilities of citizenship in a democracy, and of membership in larger and smaller communities, and to foster the desire and will to so live and act as to promote the public welfare.

Whatever calling or profession one or another may follow, all are citizens. Citizenship is inevitable, without regard to age, position in life, vocation, race, social position, or the possession of the right of suffrage. Every citizen is constantly influenced for good or bad by many agencies, and must become helpful and useful to the community or else a burden to society or a menace to the State, and perhaps both. The school, and every other conscious agency of education, whether for children and youths or for adults, should work for civic righteousness and efficiency.

It is generally conceded that the methods now in common use for teaching the duties of citizenship are inadequate, and there is a strong widespread demand for help in developing better methods. On the other hand, successful experiments have been made here and there which seem to show the way to better methods and results. To find and bring together the best thought and experience on this subject, and make them available to all teachers, school officers, and others interested in civic education, and to bring into cooperation with the Bureau of Education all the agencies that have hitherto been working toward the common end of the better teaching of this subject, but independently of each other, has been the first work of this division. These agencies include not only schools and colleges, but numerous civic leagues and other organizations which both supplement the work of the schools for children and youths and also provide for adults instruction in civics and the duties of citizenship.

Within the brief period between the establishment of this division and the close of the fiscal year the specialist in civic education gathered, organized, and developed much information about civic education in elementary schools; cooperated with several associations studying civic education in secondary schools; began a study of the preparation of teachers, both in training and in service, for effective work in this and allied subjects; and cooperated with the American Political Science Association in an inquiry in regard to instruction in government in colleges and universities. Through the cooperation of the Intercollegiate Civic League, he visited seven colleges and universities and observed the work of civic and good-government clubs of college men in these institutions and wrote a preliminary report of his observations. He also visited, on invitation, the cities of St. Louis, Kansas City, Louisville, Boston, and Yonkers to confer with school officers and civic committees relative to the reorganization of civic instruction both through the school and through other agencies. Plans were begun and have since been continued for the development of more adequate methods of civic instruction for adult immigrants and for the stimulation and promotion of public discussion and debate of questions of general and

local public interest in colleges, schools, clubs, and social centers. A series of brief circulars, known as "The civic-education series," was begun and has been continued. These circulars are mailed to school officers and teachers in elementary and secondary schools.

Through the cooperation of the North American Civic League a division for the investigation of the education of immigrants was established in April, 1914, under the immediate direction of a trained sociologist and investigator, who was at once assigned to work in connection with the Pennsylvania Department of Labor, at Harrisburg, to make investigations of illiteracy among adult immigrants and of methods of preparing immigrants for citizenship and for participation in American industrial, social, and civic life. The work undertaken then has since been finished and reported, and other important work begun.

Within the year the Editorial Division of the bureau issued the Annual Report of the Commissioner of Education in two volumes, Volume I being a comprehensive survey of the progress of education within the year in the United States and a briefer survey of progress in other countries; Volume II being a survey of statistics of education in the United States. Fifty-three bulletins were issued, containing a total of 4,122 pages. Among these were studies of industrial education, prison schools, special features in city school systems, rural education surveys, pension systems for teachers, economy of time in education, school playgrounds, the reorganization of secondary education, school hygiene and health in schools, education of immigrants, legislation and judicial decisions relating to education, school systems of Switzerland, England, and Denmark, compulsory school attendance, vocational guidance, kindergartens, salaries of teachers, and university extension. More than a half million copies of these bulletins were distributed.

The issue of brief multigraphed circulars on educational subjects, begun a year or two ago, developed considerably during the year. Approximately 600,000 copies of various multigraphed articles were mailed. Special statements on educational matters were issued to the newspapers during the year at the rate of three a week. While it is impracticable to check up systematically the publication of this material, the clipping returns indicate that the percentage of use is high. This service is useful in popularizing knowledge of education and is constantly increasing. At the end of the year the number of persons reached by each issue of the various circulars was as follows: Press letter, 2,200; city-school circular, 5,000; legislative circular, 2,700; rural-school letter, 5,200; higher-education letter, 1,500. In the case of some of the circulars it was found necessary to order much larger editions than here indicated, to answer the demand for additional copies, and the bureau was com-

pelled to refuse many urgent requests from superintendents to have their teachers put on the list to receive this material. Many superintendents report that they are filing or binding these letters; others reprint them for distribution to teachers; still others save their copies and print them together in a bulletin for their communities at the close of the year.

The bureau's experience with these duplicated articles, usually only two pages in length, emphasizes the need for a type of pamphlet material supplied now only in part—leaflets of three or four printed pages on current educational topics. The present supply of bulletins, often wholly inadequate for even the most important demands, might be made to go much farther if we could print leaflets in large quantities to answer the general inquiries that come in constantly increasing volume. It is hoped that the printing laws may soon be so amended as to permit the printing of such leaflets in large numbers.

Some idea of the extent of the statistical work of the bureau may be gained from the statement that the bureau collected and tabulated in the fiscal year statistics of—

48 State school systems.
1,158 city school systems.
596 universities and colleges.
69 agricultural and mechanical colleges.
556 professional schools.
1,094 training schools for nurses.
284 normal schools.
673 summer schools.
11,277 public high schools.
2,168 private high schools and academies.
1,167 public high schools having courses in agriculture, domestic economy, etc.
51 public manual-training schools.
103 schools of agriculture.
200 technical and industrial-training schools.
618 commercial schools.
426 schools for negroes.
106 State industrial schools and reformatories.
64 institutions for the blind.
147 institutions for the deaf.
59 institutions for the feeble-minded.
13,595 public, county, and school libraries.

Attention is here called to the fact that the educational directory, which formerly was included in this volume of the Annual Report of the Commissioner of Education, is now issued as a separate publication. This directory for the current year contains the names of—

Officers of the United States Bureau of Education.
Principal State school officers.
Officers of State boards of education.
Executive officers of State library commissions.
Superintendents of cities and towns of 4,000 population and over.

County superintendents.
Division, township, and district superintendents.
Officers of boards of trustees of universities and colleges.
University and college presidents.
Professors of pedagogy and heads of departments of pedagogy in universities and colleges.
Presidents and deans of professional schools.
Principals of normal and kindergarten training schools.
Superintendents of schools for the blind.
Superintendents of schools for the deaf.
Superintendents of schools for the feeble-minded.
Directors of schools of art.
Summer school directors.
Directors of library schools.
Directors of museums.
Educational boards and foundations.
Church educational boards and societies.
Superintendents of Catholic parochial schools.
Jewish educational organizations.
International associations of education.
Learned and civic organizations.
American educational associations.
State federations of women's clubs.
Mothers' congresses.
Educational periodicals.
Foreign countries—chief officers of education.

The accessions to the library during the year were: Bound volumes, 4,893; serial publications, 8,482 numbers; periodicals, 8,745 numbers. This is now one of the most important libraries on education in the world and should be so housed as to make it of the largest possible use to all who are interested in this subject. An important part of the work of the library division is the compilation of bibliographies upon request of teachers and school officers. The division compiled during the year 223 bibliographies. Lists of references on 15 subjects were separately printed in leaflet form, and 5 of these lists, the original edition having become exhausted, were thoroughly revised and reprinted. The division also prepares for publication a monthly record of all educational publications.

The library continued its service to students of education in universities, colleges, normal schools, and to teachers' associations and individual students by lending upon request books on various subjects of education. The library also had prepared a permanent traveling exhibit illustrating the work of school libraries. This exhibit was first displayed at the 1914 meeting of the American Library Association, and it has since been put on exhibition at the St. Paul meeting of the National Education Association, at various State and sectional teachers' associations, and at summer schools.

The increase in the correspondence of the bureau is indicated by the fact that within the fiscal year 84,332 letters, not including returns

to blank forms of inquiry, were received at the Washington office. If the letters received at the Seattle office, at substations of the bureau, and by agents in the field be counted, the total exceeded 100,000. For the fiscal year ended June 30, 1910, the total number of letters received was only 18,463.

The introduction to the report of the Commissioner of Education for the year ended June 30, 1913, contains a fairly complete account of conditions and needs of education among the natives of Alaska, and the purposes and aims of this bureau in regard to them. In its proper place in the present volume is contained a full account of the work for the fiscal year ended June 30, 1914; it is not, therefore, necessary to make further reference to it in this introduction.

The efforts of the commissioner to bring the Bureau of Education into closer touch with the many interests and agencies of education in all parts of the country and to obtain a fuller cooperation of school officers and teachers were continued through the year with gratifying success. The National Education Association, the International Kindergarten Union, and several other important associations appointed committees to cooperate with the bureau in its work. One of the most important cooperating committees is the committee on standards, appointed by the Department of Superintendence of the National Education Association and consisting of 16 members of the association, who are undertaking to investigate, in cooperation with the Bureau of Education, standards of teaching and attainment in all the more important subjects taught in our public schools. The National Committee on Standards is cooperating with the bureau in defining new and uncertain terms used in writings on education. This policy of cooperation has been further extended within the current fiscal year and will be still further extended as opportunity offers. It has been found very helpful in many important ways.

RECOMMENDATIONS.

In the Statement of the Commissioner of Education to the Secretary of the Interior for the fiscal year ended June 30, 1914, I submitted the following recommendations for the extension and improvement of the work of the bureau:

(1) An increase in the salaries of chief clerk, editor, statistician, specialist in land-grant colleges statistics, specialist in higher education and other specialties, and the removal of the limit on amount of salaries which may be paid from the lump-sum appropriation for rural school education and industrial education. The duties of these positions require the services of men and women of such kind and degree of ability as demand salaries considerably higher than are now paid in this bureau. I can only repeat what I said in my statement for 1913, that work of this kind had better not be attempted than not done well.

(2) An assistant commissioner, who should also be a specialist in secondary education and should serve as chief of a high-school division of the bureau. The duties of the

office make it necessary for the commissioner to visit distant parts of the country and to be absent from the office frequently many days at a time. There should be an assistant commissioner to carry on the work in the office. The increased work in the office demands much more of the commissioner than was demanded formerly. Probably the most important phase in public education in the United States at present is that of the secondary schools. The high school is, or should be, the heart and center of our school system. The problems of the high school are more difficult and their solution more urgent than those of any other part of the school system. The head of the high-school division of the bureau should therefore be a man of great ability. By combining the offices of assistant commissioner and of specialist in secondary education it should be possible to pay a salary sufficiently large to attract a man of such ability.

(3) Additional specialists in higher education, including education in universities, colleges, schools of technology, schools of professional education, and normal schools. There is special need of an able man, familiar with agricultural education and the problems of negro education in the South, to devote his entire time and attention to the colleges of agriculture and mechanic arts for negroes in the Southern States.

(4) An increase in the number of specialists and assistants in rural education and industrial education. The appropriation for salaries and expenses in these subjects for the current year is $30,000. With this it is impossible to obtain the services of more than eight specialists and assistants and have a sufficient amount left to pay the necessary traveling expenses. There is urgent need for not less than three times this number of men and women for this work.

(5) More adequate provision for the investigation and promotion of school sanitation and hygiene. Nearly 20,000,000 children spend a good part of their time each year in public and private schools in the United States. They come to these schools that they may gain preparation and strength for life. In many of the schools the heating, lighting, ventilation, and other means of sanitation are so poor that instead of gaining strength for life they have the seeds of disease and death sown in their systems. In many other schools the daily regimen is such as to cause the children to lose a very large per cent of that which they might gain with a better regimen. From State, county, and city school officers, in all parts of the country, thousands of requests come to the bureau for information and advice in regard to these matters. The bureau should be able to give accurate information and sound advice regarding all the various phases of this subject. The establishment of health and right health habits must be considered a most important and vital principle in any education that is to fit for life.

(6) The formation of a division, with a group of able specialists and assistants, for the investigation of problems of education and school administration in cities and towns. The drift of population to the cities and towns continues, and the proportion of urban population to rural population is increasing rapidly. Almost one-half of the children in the United States now live in cities, towns, and densely populated suburban communities. In some section of the country a very large proportion of these children are the children of foreign-born parents. All this adds to the complexity and difficulty of the problems of city school administration, especially in the larger cities. Many hundreds of requests for advice and information in regard to these problems come to the bureau every year. At present there is no one in the bureau whose special duty it is to respond to them.

(7) The establishment of a division, with specialists and assistants, for the investigation of exceptional children. There are in the United States more than a million children whose education requires means varying widely from those in common use for the education of normal children. These children are to be found in cities, towns, and rural communities alike, and all school officers and teachers have to deal with them. The Bureau of Education can not be considered as performing its duties to all the population with impartiality until it has in its service men and women who can

give accurate information and helpful advice in regard to the education of these children.

(8) Provision for the investigation of the education of adult illiterates and the dissemination of information as to the best methods of teaching illiterate men and women to read and write, and of extending the meager education of those who were denied the advantages of the schools in their childhood and youth. According to the census of 1910 there were in the United States more than 5,500,000 illiterate men and women and children over the age when they may be expected to make a beginning in the public schools, and there were many millions more barely able to read and write. This illiteracy is a burden to society and to State and Nation. Within the last few years considerable interest in the removal of this burden has developed. It is believed that States, local communities, individuals, and benevolent societies would heartily cooperate in any rational plans which might be devised and presented by this bureau for this purpose.

(9) A careful and thorough investigation as to the means of better education of children in the homes, and the dissemination of information as to the best methods for the early physical, mental, and moral education of children in the home, and for the better cooperation of home and school in the education of children of school age. Children of the United States are in school less than 4 per cent of their time from birth to 21. The home is the primary and fundamental educational institution. Schools and other agencies are only secondary. If education in the home fails, no other agency can make good the failure. With our changing civilization and social and industrial life, there is need of more careful study of education in the home. The bureau has already made a beginning in this work, but there is need of far more than it can hope to do without much larger equipment for it.

(10) A specialist in educational theory and practice, to serve as a director of investigations in education, assisting National, State, and local committees and commissions and making available for them the large collections of material in the library of the bureau and elsewhere in Washington. National, State, and local associations appoint many committees and States and cities appoint many commissions to investigate and report on various problems of education. Many of these committees and commissions fail more or less completely for want of material and intelligent assistance and direction. The library of this bureau, one of the most complete of its kind in the world, contains a large collection of material for most of these investigations. The specialist here recommended could put this collection at the service of these committees and commissions and at the same time give much-needed assistance and direction. His services would also be valuable to other specialists in the bureau and to hundreds of individual students of education upon whose investigations the country depends for most of its knowledge of education.

(11) A librarian. A library of more than 150,000 volumes, reports, and pamphlets, and an annual accession of more than 20,000 pieces is now under the direction of a clerk acting as librarian. The use of the library as a source library by students and schools in all parts of the country is increasing, and with the increase in the bureau and its work the use made of the library by employees of the bureau is also increasing rapidly. To promote the best use of the library and to avoid waste of time and money in the bureau itself, the library should have expert supervision.

(12) An assistant editor. The editorial work of the office has increased fivefold within the last four years, and it must increase still further within the next year. It is now impossible for one editor to perform satisfactorily all the required editorial work.

(13) A specialist in foreign and domestic systems of education and an assistant in foreign systems of education. This bureau is undertaking to keep the people of the United States informed as to all important progress in education and in methods of teaching in all countries of the world. It must have, in order to accomplish this work with any degree of satisfaction, the additional assistance here indicated.

(14) Two additional collectors and compilers of statistics. Material for prompt and reliable statistical reports can not be had by this bureau without frequent visits to State and city education offices and the first-hand study of their returns.

(15) Additional clerks, copyists, laborers, and messengers to correspond with the increase made possible by additional specialists.

(16) An increase of appropriation for traveling expenses for the commissioner and employees acting under his direction. This is necessary to enable them to make original investigations in education in different parts of the country and to disseminate information by meeting with educational associations and other societies interested in education in different parts of the country, which is the most effective means for the dissemination of such information.

(17) Means to enable the bureau to cooperate with schools of education in colleges and universities, with normal schools, and with city-school systems in making important investigations and definite experiments in elementary and secondary school education under scientific control. With a comparatively small amount of money the bureau might obtain the cooperation of individuals, institutions, and boards of education in making important investigations and experiments in education not otherwise possible without much larger expenditures.

(18) An appropriation of $125,000 to enable the Secretary of the Interior, in his discretion and under his direction, and with the advice and cooperation of the Public Health Service, to provide for the medical and sanitary relief of the Eskimos, Aleuts, Indians, and other natives of Alaska. Careful investigations made with the cooperation of the Public Health Service have shown the necessity of immediate provisions for the care of the health of the natives of this Territory and for the eradication of communicable diseases now prevalent in different sections of the Territory which, if not put under immediate control, will soon destroy the lives of many of these people and spread among the white settlers. From year to year the bureau has used an increasingly large proportion of the appropriation for the education of the natives of Alaska for medical attendance and for general sanitation. To do this it has had to close schools in several villages and to withdraw from these villages all the influences for the civilization and improvement of the people. This should not be continued longer, and unless special funds are appropriated for medical attendance or the appropriation for education largely increased, the bureau must abandon all attempts to care for the health of these people.

(19) An increase of $1,000 in the appropriation for the distribution of reindeer in Alaska. The Alaskan reindeer service, which was begun in a small way a little more than 20 years ago, has now reached large proportions and has accomplished much for the support and for the education and civilization of the natives in the northwestern part of the Territory. The bureau should extend at once the distribution of reindeer in the section in which reindeer may be herded profitably, to give all the natives of this section the advantage which has already come to those living in settlements to which reindeer have been sent, and to complete this work so there may not be need for a continuation of the appropriation for this purpose.

All these recommendations are for the immediate needs of the bureau. They will require an appropriation of not less than $275,000.

To enable the bureau to perform satisfactorily the function for which it was created and to respond to the demands for a clearing house for accurate information, well-matured opinion, and sound advice in regard to all phases of education and for assistance in promoting democratic education throughout the country, there will be need in the near future for an annual income of a half million dollars and for an education building with ample room for the library of the bureau and a complete educational museum in which school officers, teachers, and students of education may find, properly arranged and catalogued, typical specimens of all forms of school furniture and equipment, with outlines of courses of study and whatever else will enable them to

gain a comprehensive view of purposes, methods, and results of education in this and other countries and assist them in forming ideals for the improvement of their own schools and work. This will enable the bureau to respond to its part of the demands the States and the people have a right to make of the Federal Government, which was created to serve States and people in those things in which they can not serve themselves at all, or so well, or only at such cost as would become unnecessarily burdensome.

EDUCATIONAL SURVEYS.

For several years past surveys have been made in this country of city and State school systems. Two chapters of this report are devoted to reviews of these surveys, and this bureau now has in press a bulletin containing a brief account of school surveys in other countries. Within the last year or two the survey has been extended to colleges. The most noted examples of college surveys thus far are the survey of the University of Wisconsin, by the State board of public affairs, and the survey of the University of Vermont and the colleges of that State contained in the general survey of the State by the Carnegie Foundation. There are indications that for one reason or another many colleges will be subjected to this inventorying process within the next few years. Already this bureau has promised to make more or less complete surveys of a half dozen colleges and half as many normal schools within the next fiscal year.

Because of the newness and importance of the college survey, I take the liberty of appending here a paper on this subject which I prepared for and read at the nineteenth annual meeting of the National Association of State Universities in the United States of America, in Washington City, last November. While this does not pretend to give an exhaustive analysis of the subject, it contains nevertheless, I believe, a fairly clear statement of some of the principles which must be kept in mind if these surveys are to be made helpful. The special references to State universities and to colleges of agriculture and mechanic arts are justified both by the fact that the paper was prepared for a meeting of representatives of State universities and by the certainty that the majority of college surveys for many years to come will be of institutions partly or wholly supported by State and Federal funds and under State control.

College Surveys.

The college survey is a new thing among us, and we know little about it as yet; I am sure I know very little. It is, however, a legitimate thing and altogether worthy of our very careful consideration. If one counts direct expenditures, interest on investments, value of time of students, and cost of their living at college the colleges of this country represent an annual expenditure of about $400,000,000. So large an expenditure for a purpose so important should have a most careful and intelligent supervision, to the end that the best results may be obtained. The magnitude, both of expenditures and of work, has increased very rapidly within the last ten or fifteen years. The 625 colleges reporting to the Bureau of Education in 1900 reported a total

income of a little less than $25,000,000. The 596 colleges reporting in 1913 reported a total of something more than $105,000,000. The total income of the 567 institutions reporting in 1914 was $120,579,257, of which $18,422,856 was for endowment. Quantity and variety of work done have probably increased in about the same proportion.

Any survey of the equipment, standards, administration, and work of a college should be sympathetic and constructive, as should any school survey, and not unsympathetic and destructive. Those making the survey should be men and women who know what college life and work are and who have just ideas as to what it may be made. They should understand the relation of the college to society and state, to other parts of the system of public education, and to industrial life. They should know what education means and have a just conception of relative values in education. The college survey committee should be composed of expert accountants, good business men with a right understanding of business efficiency and an appreciation of its value—professional men and educators. If faculty and trustees are not directly represented on the committee, then full hearings should be given to representatives of both these bodies. Every such committee should contain two or three persons having the same grade of ability and composed of the same character of experience as the best of our college professors, deans, and presidents, but having at the same time a larger general knowledge of colleges in all parts of this country and in other countries than most college men can be expected to have. These men should also be able to bring to their work knowledge and skill gained in other surveys of this kind; they could thus give valuable aid to the committee as a whole in beginning the survey, in determining standards, and in judging of the work of the college in the light of a knowledge of the best of other institutions. The United States Bureau of Education should be able to contribute and help to secure such experts for every survey committee.

(1) The committee thus organized should make a careful and intelligent survey of the State, the section of country, or the portion of society served by the college; its industrial, social, and civic condition and tendencies; its present educational needs and its probable needs in the near future. It should make a careful investigation of other educational institutions and agencies serving the same State, section, or portion of society. Remembering that colleges and other institutions and agencies of education do not exist for their own glory, but for the service they can render, the committee should try to determine wisely what service should be performed by the college under survey and what should be left for other institutions and agencies to render. Almost everywhere in America there is much loss through overlapping and duplication of work. In one of the Southern States there are 5 colleges and universities for Negroes, all offering the same courses and attempting to maintain the same kind of equipment and do the same kind of work. The 5 have a total of less than 150 college students. One well-equipped college could do the work done by all and do it much better. One college would be almost as convenient to the students attending them as the 5. Most college students in that State, as elsewhere, must live away from home. When away from home it makes little difference whether the distance is 25 miles or 250 miles. One of the States of the Middle West has 24 colleges striving to do the same kind of work. A single religious denomination has, I believe, 6 colleges in the State, all claiming to be of the same rank. It is encouraging to know that church boards of education are beginning to see the unwisdom of such duplication of institutions and are undertaking to differentiate their schools and to organize them into systems, every part of which may cooperate wisely with every other part.

(2) A survey of a State university should make a careful study of its relation to other colleges in the State. If the State agricultural college is located elsewhere as a separate institution, the survey should attempt to determine the proper sphere and function of each. Should, for example, advanced courses in engineering be given in each institution?

A study of the community served by the college and of other institutions and agencies of education serving the same community will enable the committee to better determine the proper and legitimate work of the college and assist it to some extent at least in determining standards to be used in judging of its administration, equipment, and work.

(3) The survey should include a careful examination of the charter of the institution, to determine whether or not its terms are such as to permit it to do honestly and effectively the work which it should now undertake and what changes, if any, are necessary to permit it to do this work better. The charters of many of the older colleges were issued when the conditions of the country and its educational needs were quite different from what they are at present. An institution can hardly claim to be doing its work honestly if its name does not indicate clearly the type of work which it does.

(4) The control of the college should be considered carefully. Are the organization of the board of trustees, the methods of election of its members and their terms of service such as to foster sound and steady development and progress, avoiding ultraconservatism and stagnation on the one hand and violent and cataclysmal revolutions on the other? State institutions are especially subject to injurious partisan political interferences and to violent and hurtful revolutions. All institutions supported by the people must of course be controlled by the people. The State university should not, I believe, be controlled by a self-perpetuating board or close corporation. If the people are asked to appropriate their money for the support of the schools, then they must be intrusted with their control. I believe in the principle of the fullest possible trust in the general wisdom of all the people. Yet, the public as a whole can not always be on its guard, and it is subject to delusions and hysteria. It must through the form of organization of its institutions protect itself against danger from its agents in its moments of preoccupation and from itself in its moments of insanity. Is the personnel of the board of trustees such as to insure intelligent representation of the best interests of the clientele of the college?

(5) The administration of the college must be an item of great importance to the survey. Is the internal organization of the college such as to give to each department, school, professor, and assistant the best possible opportunity for the most effective work? Is there freedom from the annoyance that comes through having to give an undue amount of time to petty details of the administration and the so-called college and student interests? Are freedom and independence on the one hand and college spirit and intelligent sympathetic cooperation among administrative officers, members of the faculty, and students on the other hand fostered and promoted? Are the duties of the various offices clearly defined, and are they performed in an efficient and business-like manner? The business of a college should be conducted on business principles. Are the overhead charges for administration proportionately larger than they should be? In school and college there is now, I believe, danger that too much of the income may go for administration and equipment and too little to those who do the actual work of instruction. All efficient business organizations try to determine accurately their expenditures for administration and to make them as low as they may be without injury to the efficiency of administration. We need some careful studies to find just what are the proper ratios of cost of administration to cost of instruction in colleges and schools of several different types. Until these studies have been made we can have no standards by which to measure the efficiency of administration in this respect.

The survey should inquire carefully as to whether funds received by the college for specific purposes are used for the purposes specified. This applies especially to the land-grant colleges and the funds which they receive from the Federal Government. In the beginning it was difficult for many of these colleges to use the Federal funds according to the spirit of the law and it is still difficult for some of them, but the time has now come when their incomes from other sources should be made suffi-

cient to enable them all to use the Federal funds not only according to the letter of the law, very liberally interpreted, as it has been by the Department of the Interior, but also according to the full intent and purpose of the several acts of Congress through which the funds are received.

(6) Probably most important of all for the survey committee will be the faculty of the college, its general makeup, and the character, education, experience, and teaching ability of its members. As is the teacher, so is the school. The teacher is the school. The teacher makes the school and like every other creator he makes it in his own image and likeness. We have applied these sayings over and over again to elementary and secondary schools. They are equally applicable to the college. As are the members of the faculty, so is the college or so will it become. Those who give instruction make the college, not its trustees, president, and other officers of administration, nor its buildings, grounds, and other equipment. These all help, but those who come in daily contact with the students as teachers are of first importance in determining the character and worth of the college. What proportion of the teachers are strong men and women of tried and recognized ability and what proportion are weak and untried? A college may have in its faculty a few professors of great and known ability retained at large salaries, while the great majority of its professors and instructors are weak, inefficient, or untried, and are living on salaries totally inadequate. The former may give the college a temporary reputation, but the latter do most of the teaching and give it its real character. A smaller faculty of men and women of more nearly uniform ability might do much better work and enable the school to render better permanent service.

The survey should consider the distribution of instructors among the classes. More than 60 per cent of the young men and women who enter college quit before the beginning of the third college year; probably about 40 per cent leave at the end of the first year or before. Thus a large majority of all the students of our colleges are in the classes of the first two years. It is doubtful if a college is making the best use of its opportunities or rendering its best service when it assigns its weak and lowest salaried instructors and assistants to these classes and reserves the services of its few able and highly paid professors for the remnant of students in the last two college years. It is, I think, quite certain that more students would remain for the higher classes if they came in contact with the abler and better men and women of the faculty during the earlier years of their college life. It is this principle which I have had in mind when urging the establishment of junior colleges and the transformation of many of the colleges we now have into institutions of this kind.

(7) The distribution of students among the several courses and classes of the college must also be considered. In most colleges are to be found classes too large for effective work and others so small as to make the cost of instruction disproportionately large. This may sometimes be unavoidable, but usually a careful study of conditions will reveal the possibility of such changes of schedules or such redistribution of students and reassignment of instructors as will remedy the evil.

(8) Are the salaries paid professors and assistants such as to attract and hold men and women of first-class ability? No institution can afford to lose continually its best men and women and to fill the vacancies thus created with men and women of less ability or of doubtful and untried ability. It may be complimentary to a college to have its best professors called to richer and better institutions, but it does not contribute to its efficiency. A college should strive to keep in its faculty those who have proven their worth. To attain its largest usefulness, it must use great care and wisdom in selecting new members of its faculty, offer sufficient salaries to obtain the services of those who give best promise of usefulness, and then make the conditions of service and the increase of pay such as to retain in its service those who make good.

(9) Is the sum paid for teachers of all grades so used as to obtain the maximum teaching results, keeping in mind both the ability of the teachers and the size of their classes? While classes should be reasonably small, the size of the class is not of first importance. A competent teacher, with a class of 30 students, may accomplish much more for each individual student than two less competent teachers with classes of only 15 students each. Maximum and optimum sizes of classes will, of course, vary for different subjects. You probably all know of the valuable study recently made of the student-hour costs of instruction in one American college and the comparison of these costs with the student-hour costs in other colleges, the purpose of the study being to arrive at some standard of costs. To have such a standard is no doubt important. Student-hour and per capita cost of instruction will depend on the average salary of instructors and the average ratio of number of instructors to number of students. Fifty thousand dollars for 25 teachers to teach 250 students in classes averaging 10 students each, and fifty thousand dollars paid to 15 teachers to teach 250 students in classes of 15 or 16 students each, will give the same per capita and student-hour costs, but this does not at all prove that the one policy is as wise as the other. In teaching, as elsewhere, and more than in most other things, one who can do the work well is worth more than two or five who can not. In elementary schools I have seen one teacher with a class of 60 children do for each child more than twice as much as another teacher in the same school did for a class of 30 children. In some subjects classes may well be large, in others they must be small. The survey committee should consider the skill with which these principles are applied in the college.

(10) What is the attitude of members of the faculty toward their work, the work of other members of the faculty, the student body, and the college as a whole? This is, or is close akin to, that indefinable but all important something generally known as esprit de corps. Something is wrong with a college in whose faculty there is not such a spirit of a very fine and high type. A right attitude of all members of a college faculty in these respects will counterbalance much lack of equipment and other defects.

(11) Next must be considered the student body. Where do the students come from? What classes of society do they represent? Are all classes represented in proper proportion? A State university supported by the taxes of all the people of all parts of the State is failing in its duty if it does not draw students in just proportion from all classes of society and all parts of the State. If there is not such a just representation, why not? A careful investigation will frequently reveal the fact that the university has failed to put itself equally in close and vital contact with all classes of the people and all sections of the State. A State university must remember its equal duty to all and direct its interests and energies accordingly.

(12) How are students distributed among schools, departments, and classes? Students should, of course, be given much freedom in the choice of their courses and the direction of their work. Nevertheless, if the survey of the State, section of country, or portion of society served by the college indicates a fairly definite need and demand for men and women with certain different kinds of college training in somewhat definite numbers, the colleges on which the State, section of country, or portion of society in question depends for its educated men and women must see to it that these are prepared in about the relative numbers needed. The work of the colleges should not result in an overproduction of any one kind of ability and injurious underproduction of another kind. The colleges of a State in which many engineers of various kinds are needed for the profitable development of its resources should not persist in a policy which sends most of its students into the law and the ministry. To bring about a right proportion in the number of students taking various courses may be difficult, but it is essential to the best service on the part of the college. Where it has not been done the survey should call attention to the failure, and if possible show

how it may be remedied. Sometimes one or more popular professors in one department will draw students in undue proportion from other departments in which the professors are less popular. Parents advise their sons—they used to do this more than now—to take professors rather than courses. "It is the man that counts, and not the subject," they say, and in a measure this is true. The personality of a man does count for much in the high school and in the lower classes of the college and for something in the higher classes, but for these higher classes and in technical subjects the man counts for less and the subject for more than in the lower classes.

(12) What is the spirit of the student body? Is it one of work, earnest endeavor, and high ideals, or the opposite? Colleges differ much in this respect. This general attitude of the student body differentiates itself into the attitude of the student body as a whole toward the college, toward the faculty, toward college work and "student activities," and the attitude of individual students toward each other. Are "student activities" lacking or do they assume an undue relative importance? Are the students united for all legitimate work of the college or are they divided into unsympathetic factions? That the student body should have a spirit of earnest work is, of course, of the greatest importance. It may be a good thing for boys to live about a college, but it is certainly much better for them also to work at college, forming habits of work to be taken with them into the world as well as gaining whatever knowledge and skill may be gained by work at college.

(14) How long do the students of the college remain? The ability of the college to hold its students must be counted as an important factor in its success. Few young men and women of this day of economic prosperity and the low cost of living (as measured in terms of labor) are obliged to leave college to go to work. Whether they remain long in college or leave early depends very largely on the appeal college life makes to them and the extent to which the college inspires them with a desire for that which it can give.

(15) What are the standards of admission, promotion, and graduation, and how well are they enforced? There is no longer any good reason, I believe, why any institution calling itself a college and giving college degrees should admit students who have had less than is offered in a good high school of four years. There are now approximately 14,000 high schools in the United States. Nearly 10,000 of these offer four years' work based upon the full amount of elementary school work of seven, eight, or nine years. Few communities are unable to maintain one or more good high schools. If any community feels unable to maintain such a school, it will usually be cheaper, and I believe almost always better for the boys and girls of that community to attend high school in some other community than to go unprepared to a low-grade, cheap college which attempts to do both high-school and college work without adequate equipment for either.

In determining the standards of a college, consideration must also be given to the extent to which "conditions" are allowed and the way in which they are made up, and to the extent to which work credited for admission is also credited as college work and counted toward graduation. If the college requires on paper four years of high-school work, or 16 units, but admits a large per cent of its students on three years of high-school work, 12 or 13 units, and permits these more poorly prepared students to make up their conditions during the regular time for college work, it can hardly claim that its standards are as high or that it can offer as much to its well-prepared students as a college allowing no admission conditions to be made up in the regular time for college work; nor are the standards really what they appear to be if work accepted for admission is not used as a basis for the college work. A college may accept for admission two or more units in chemistry, physics, and biology, but not base its own work in these subjects on the beginnings already made by the students, requiring these students to do their high-school work over again with freshmen who have had no work in these subjects, or else to wait until other students have done the beginning work

and then join them in a higher class. Under these conditions students offering for admission work in a subject and then taking the college work in the same subject do not get an amount of work in that subject equal to the sum of the years of work done in the high school plus the years offered in college, but only the work represented by the number of years in the subject offered by the college. Again, it may well be asked how much of the college work really is work for which college credits should be given and how much is only high-school or even primary-school work. Much of the work in foreign languages and the elementary phases of the physical sciences now given in American colleges is of this nature. The child of 6 in the primary school reads "a cat," "a black cat," "it is my cat," "I see the cat." At 18 the same child enters college and reads similar matter in German, French, or Spanish through a good part of a year and receives for it dignified college credits. The lessons in the primary school and in the college involve the same kind of work and require the same kind of mental ability. Much of the science work in our American colleges is also such work as should be done, and can be done, better in the high school or even in the elementary school. How much of this kind of work is done in the college under survey? To what extent does the college build its work on the high-school work accepted for admission? How well are its courses organized? How much of unity and continuity is there in them? What is the proportion of advanced work, second, third, and fourth year work, in the same subject or allied subjects, to single-year or even half-year work? These and other similar questions must be asked and answered before standards can be determined with any degree of certainty. How well is the work of the individual students organized? What help do instructors give undergraduate students in organizing their work? Students should have the largest possible amount of intelligent freedom in making up their courses of study, but *intelligent* freedom requires much wise guidance.

(16) What standing do students of the college take when going to other colleges of known standards? Is the work of the college accepted at its face value? It is especially desirable to know what standing its graduate students have taken when entering standard schools for advanced work. Though this may be a narrow test, it is one of the most definite for any college which has sent many students on for graduate work. It is also one of the fairest. It reveals clearly the results of the policy of the college in admitting students and of its own work for its students through the full college course.

(17) If the college has been established long, it may well be asked what part its graduates have performed in life and how well. President Gilman used to say that the work of a college at any period must be judged by the work that the students of that period have done and are doing 25 or 30 years later. A State university supported by all the people to prepare men and women to serve the State in every place in which knowledge and skill are required may well be judged by the fullness, variety, and efficiency of the service rendered by its graduates.

(18) How well are courses of study of the college adapted to the purposes the college should serve and the conditions under which it must work? It is especially desirable to determine whether the income and equipment of the college are adequate to the work undertaken or advertised. College work of the best type now requires costly equipment. To hope to hold a place in the first rank, a college must now have a much larger income than was necessary only a few years ago. If the income is relatively small, the college must be content to offer a relatively small number of courses, and these of a kind that do not require large expenditures. Several of our larger institutions now advertise more than one thousand courses. The University of Wisconsin ten years ago advertised an even one thousand. Only a generation ago few advertised more than two or three hundred. The larger number of courses is made necessary by the increase of knowledge and the complexity of modern life and should be offered by some at least of the larger and richer colleges, but from the multitude of possible subjects most colleges must select those which they are able to give and which are best adapted to their constituencies. Since a State constituted of the whole body of the people and representing all their interests and needs must assume the respon-

sibility of supplying all its wants and may not transfer this responsibility to any part of the people less than the whole or to the possibilities and chances of private benevolences, the State university must, therefore, provide instruction in all subjects that are of vital interest to its people and the State must make it possible for it to do so.

(19) The survey should make a careful inventory of the equipment of laboratories, shops, and libraries to determine to what extent they are adapted to the demands upon them and the work which the college should undertake to do through them, and should indicate clearly their shortcomings and needs. It should also include a careful inspection of buildings and grounds to determine their fitness for the purposes for which they are used, their sanitation, and the manner in which they are equipped. Attention should also be given to environment of the college and to the possibilities and means of improving this environment. Special attention should be given to the question whether the location of the college is such as to make it possible for it to succeed in certain lines of work. Is it undertaking to maintain a medical school without the possibility of adequate clinics? Is it attempting to give advanced instruction in engineering without the possibility of bringing its students into contact with modern industrial plants? Is it undertaking to teach agriculture without sufficient and suitable land for agricultural experiments and demonstrations and without the possibility of constant observation of practical farming under normal conditions? Is it trying to prepare students for modern, democratic, social, and civic life within the walls of aristocratic or monastic seclusion? What provision, if any, is made for the homes of members of the faculty and for students? That they may do their best work, both teachers and students should live comfortably and under wholesome sanitary conditions. Whatever affects the health, the strength, the vitality, the comfort, or the economy of time and effort of either students or teachers must be a matter of interest to the survey.

(20) What is the total necessary cost of attendance at college, including fees, living, and incidental expenses? Is this total cost kept well within the limits of the means of those who attend the college? What are the actual expenses of students? Are the actual expenses little or much in excess of the necessary minimum? Are the sons and daughters of the rich permitted without protest to introduce extravagant habits of living or is this discouraged? It is easily possible for the cost of living at college, including fees of one kind and another, to become so high as to keep away many who should, both for their own good and for the good of society and state, enter and remain until they graduate. When a college becomes a rich man's club or the center of a dilettante society, its usefulness as a democratic institution is much impaired. While students and faculty alike should be able to live without stint of anything that may be necessary for the best work and the fullest life, the actual value of the work of any college will probably decrease in proportion as the expenses of either are in excess of this limit; more probably as the square or cube of this excess. What opportunities do the college and the community in which it is located offer students for profitable employment by which they may pay some portion of their college expenses when necessary? What attempts are made to induce all young men and women to get the benefit of the college regardless of their financial condition, if only they are willing to help themselves and are able to profit by attendance at college?

(21) What relation does the college bear to the general system of public education (all agencies of education are public in its function and purpose) and to the several parts thereof? Does the college interest itself in the elementary schools, earnestly trying to foster their interests? What is its attitude toward the high schools? Is it preventing their full development by its own low standards, or is it imposing upon them the narrow and rigid limitations of college preparatory schools? Is the college striving to help high-school principals and teachers find just what is best for the schools charged with the education of a rapidly increasing number of boys and girls through the golden period of early and middle adolescence, and then wisely and patiently adjusting its own work to the results of these improved high-school courses,

so that more of those who go through the high school may be inspired or induced to enter college, while those who do not shall have gained from their years in the high school the best possible preparation for life? What is the relation of the college to other colleges within its territory, to professional and graduate schools? Is it helpfully sympathetic or is it hurtfully antagonistic? What attempts have been made toward desirable adjustments between the college and all other educational institutions to the end that the whole community served by them may receive the largest benefits?

(22) What extension work does the college do? In what spirit is it done? Is it regarded as an opportunity for wider service or as a burden imposed? Is it organized as an integral part of the college work and inspired with the spirit and ideals of the college or is it disconnected, disjointed, and lifeless? Is it well chosen, arising out of the needs of the community, or has it been adopted in imitation of some other college that has won reputation for such work? What facilities has the college for its extension work? Is its income sufficient to enable it to do this work without detracting from the value of its legitimate intramural work? The campus of the modern college should be as large as the territory it serves. Wherever people labor in the sunshine or toil in the shadows, wherever they are attempting to do any legitimate work which requires an understanding of fundamental principles and the guidance which the college may give, there it should be of service. But no college should undertake work for which it is unprepared outside its walls at the expense of the legitimate work which it is already doing within its walls. To determine what extension work it should undertake, or if any at all, is not always an easy task for the college. The survey should assist it in arriving at a wise decision.

(23) What are the possibilities of growth for the college? In what direction should it extend its work? Is its income sufficient for its present needs and its future growth? Can this income be increased? Are the present sources of income sufficient to respond to new demands? What other sources of income are available or can be made available? What changes in the college and its work may and can be made to enable it to demand and obtain the larger income which it should have? These and other similar questions the survey must answer or put the college in the way of answering for itself if it is to result in much good. The final value of the survey will depend not only on the keenness with which it analyzes conditions and the justness and fairness with which it points out weaknesses and failures, it will depend also on the fullness and helpfulness of its constructive recommendations and suggestions. It is not enough for the physician to diagnose a case, however thoroughly and accurately; he must also prescribe the remedy if his services are to be of much value. The college survey committees must be able both to diagnose and to prescribe. To this end, I repeat, every such committee should be made up of men and women who have power to contribute to the work of the committee in both respects. Critics who can merely detect faults have their place, no doubt, but it is not in connection with high constructive work like this. Here, as in every other place, we must doubt the value of the judgment of men who can not also do. We all value most the criticism of those who are possessed of the knowledge that comes from experience and have proven the soundness of their judgment by the success of the work in which it has been applied.

Of such surveys as I have here attempted to describe and of which I have attempted to point out some of the elements, I believe we may not have too many. To a survey undertaken by competent persons in this spirit, I believe, no self-respecting college will object.

All of which is respectfully submitted.

P. P. Claxton,
Commissioner.

To the Secretary of the Interior.

CHAPTER I.

GENERAL SURVEY OF EDUCATION, 1914.[1]

By W. Carson Ryan, Jr.,

Editor, Bureau of Education.

GENERAL GROWTH.

In round numbers there were 22,000,000 persons enrolled in educational institutions in the United States in 1914. Of these over 19,000,000 were in elementary schools; 1,374,000 in secondary schools, both public and private; and 216,000 in colleges and universities. Close to another hundred thousand were in normal schools preparing to be teachers, 67,000 were in professional schools, and the remainder were scattered through other types of institutions. The teachers for this educational army numbered 700,000, of whom 566,000 were in public schools. In point of rapid growth the public high school still presents the most impressive figures; the enrollment for 1914 is greater by over 84,000 than for the year before.

THE COST OF EDUCATION.

The cost of education for the year, as nearly as can be estimated, was $750,000,000. This three-quarters of a billion is a relatively small amount when compared with other items in the public expense. It is less by $300,000,000 than the cost of running the Federal Government; it is less than one-third the Nation's expenditure for alcoholic liquors; it is only a little over three times the estimated cost of admissions to moving-picture theaters in the United States for the same year. Measured in terms of products of the soil, the United States spent somewhat more for education in 1914 than the value of its cotton crop, somewhat less than the value of its wheat crop, and less than half the value of the annual harvest of corn; while the Nation's bill for education was less by nearly a hundred millions than the value of the exports from the harbor of New York in the calendar year just passed.

[1] The purpose of this chapter is to present a summary statement of current educational progress as indicated by information available in the Bureau of Education. For detailed accounts the reader is specifically referred to the various chapters in the two volumes of the report, upon which this review is almost entirely based.

ENROLLMENT, SCHOOL POPULATION, AND LENGTH OF TERM.

It is estimated that there were 25,587,331 children of school age (5 to 18) in 1913, as compared with 25,167,445 in 1912. The enrollment of elementary and secondary pupils increased from 19,922,261 in 1912 to 20,431,609 in 1913. General and school population both remain predominantly rural. By the census estimates for 1913, 46.3 per cent of the population was urban and 53.7 per cent rural, if the census definition of a city as anything over 2,500 population be accepted. In population 6 to 20 years of age the cities have 41.6 per cent of the total, as compared with 58.4 per cent for the rural districts.

Very little increase is yet to be noted in the average term for public schools. Between 1910 and 1913 the increase was from 157.5 days a year to 158.1—a growth of only six-tenths of a day in three years. Attendance has improved, however. The average number of days attended by each person enrolled increased from 113 in 1910 to 115.6 in 1913.

CITY SCHOOLS.

School administration, particularly in cities, is becoming more and more of a science, and the office of superintendent of schools a profession. This is becoming true even in the smaller cities and towns; 614 out of 756 superintendents in cities below 25,000 population say that their school boards are disposed to give them more power. There is still uncertainty of tenure about the office, however. Between 1911 and 1913 there were 348 changes of superintendents in cities between 4,000 and 25,000 population. That the smaller city problem merits the special attention it is receiving may be seen from the fact that in 1913 there were only 229 cities of more than 25,000 population, while there were 2,173 cities between 2,500 and 25,000 containing one-third of the total urban school population. In the larger cities the three most prominent topics in superintendents' reports of the year relate to "definiteness in supervision, changes in grade organization, and vocational training." Mentioned frequently in city school reports is wider use of the school plant. The survey movement shows little abatement; of the nine formal school surveys reported for the year, six dealt with city school systems.

THE RURAL SCHOOL.

The main lines of rural school progress during the year have centered about the problem of a larger unit of administration and supervision, the movement for consolidation or centralization of schools, and efforts for equalization of educational opportunity by

State aid. The county system of administration was adopted for Ohio in 1914. With Wisconsin, which changed from the district system in 1913, there are now 18 States having a more or less definitely organized county system of schools. In addition, several other States have the county unit of taxation.[1]

Special activity in consolidation of schools is reported from Alabama, Indiana, Louisiana, Minnesota, North Dakota, and Ohio. Consolidation has not yet operated to reduce the total number of schoolhouses in the United States, however, which increased from 265,474 in 1910 to 277,148 in 1913.

Investigations of the year have emphasized the fact that the rural-school problem is not confined to any one section, though the Southern States, with an overwhelmingly rural population, at present show the most active efforts for improvement. New York State reports that of the 11,642 elementary schools in the State 8,430 are one-room schools; that in 3,580 of these the average attendance was 10 or less; and in nearly half the maximum tax yield at 1 per cent for school purposes would be $400. Of Colorado's 1,725 "third-class" school districts 281 contain fewer than 15 children of school age.

CHILDREN OF PRESCHOOL AGE.

Unmistakable signs of new interest in the special problem of the education of very young children are at hand. A partial indication is to be found in the vigorous growth of kindergartens since 1912, the last year for which figures were gathered.

Between 1912 and 1914 the number of cities or villages having public kindergartens increased from 867 to 1,135. There were 7,365 kindergartens in 1912, with 364,189 children, and 8,856 teachers. The 1914 figures show 8,825 separate kindergartens, 465,868 children enrolled, and 10,569 kindergarten teachers. It is still true, however, that less than half the cities in the United States have kindergartens, and the rural school is as yet little touched by kindergarten influence. From the pedagogical side the dominant note of the year is the movement for the integration of kindergarten work with that of the grades and the reorganization of kindergarten training schools to facilitate this integration.

The Montessori movement has not yet made any appreciable advance in number of schools, but has already exercised a considerable influence in two directions—in stimulating kindergarten teachers to a profitable reexamination of Froebelian theory and practice, and in calling attention generally to the significant and special problem involved in the education of children of preschool age.

[1] More recently (1915) Utah has made her optional county administration system mandatory, and Texas has greatly extended the powers and duties of the county boards of education in all counties.

DENOMINATIONAL SCHOOLS.

Statistics for 1914 emphasize the fact that private elementary schools in the United States are now confined almost entirely to church schools. The parish school system of the Catholic Church in 1914 comprised 5,403 schools, with 1,429,859 pupils, an increase of 147 schools and 69,098 pupils over the year 1913. Part of this abnormal increase is due to the inclusion for the first time of the Ruthenian Greek Catholics in Roman Catholic population figures.

The Lutheran parochial school system for 1914 reported 4,881 schools, 3,825 teachers, and 259,467 pupils. This is an increase in teachers, but a decrease in schools and pupils. It is estimated that 20 out of every 100 Lutheran children of school age attend a Lutheran parochial school, as compared with 21 in every 100 for 1913. The parochial school has apparently disappeared from the oldest of the general bodies of the American Lutheran Church, the General Synod.

Higher and secondary educational institutions still remain the stronghold of denominational education. Of 567 colleges and universities tabulated in this report, 327 are listed under denominational control; and of the 2,199 private high schools and academies reporting, 1,489 were under the control of religious denominations. These secondary institutions are maintained by 28 different denominations and have 8,762 instructors and 101,329 students. In the Catholic system special emphasis has been placed on secondary education; there were 863 Catholic high schools in 1914.

HIGH SCHOOLS.

There were 13,714 public and private high schools in 1914, with 1,373,661 students. The number of students was an increase of 90,652 over the preceding year and an increase of more than 100 per cent since 1902. Encouraging features are the increased number of high schools having full four-year courses, and the constant betterment in the proportion of students completing the high-school course. In 1914 the fourth-year students numbered 194,704, or 14.27 per cent, of the total enrollment, as compared with 13.94 per cent in 1913, and 11.68 per cent in 1907. Of the 11,515 public high schools, 8,275 have four-year courses. These four-year high schools contain 1,126,456 students, or 92.42 per cent of the public high-school enrollment, as compared with 91.21 per cent in 1913 and 88.3 per cent in 1911. Public high-school students were 88.73 per cent of the total number of public and private high-school students in 1914, as compared with 88.45 per cent in 1913, and 68.13 per cent in 1890. The number of girls exceeded the number of boys in both public and private secondary schools in 1914, the number of girls having increased in slightly

greater proportion; 56.03 per cent were girls in 1914, as against 55.46 in 1913.

The junior high school, defined tentatively as "an organization of grades 7 and 8 or 7 to 9, to provide by various means for individual differences, especially by an earlier introduction of prevocational work and of subjects usually taught in the high schools," was endorsed by all but one of the school surveys published during the year, and by various educational associations. That the movement has advanced from the stage of theory to that of practice is indicated in the fact that 168 cities claim to have junior high schools, and after all deductions are made there remain 57 cities where junior high schools are organized in unmistakable form.

"Reorganizing high schools to meet the needs of all the people, chiefly through vocational subjects," is the note that runs through the reports of State high-school authorities in practically all the States. Introduction of vocational work, particularly agriculture in rural communities, is specifically mentioned by 25 out of 36 State departments answering an inquiry as to the most important development in high-school work in their States.

COLLEGES AND UNIVERSITIES.

There were 216,493 students in colleges, universities, and technological schools in 1914, an increase of 14,262 over 1913. The bureau's list for 1914 includes 567 institutions, a decrease of 29 over the preceding year. States or municipalities control 93 of the colleges; private corporations control 474. Men still outnumber women in higher education; there were 139,373 men in 1914 and 77,120 women, as compared with 128,644 men and 73,587 women in 1913. Despite rising standards of admission and graduation, college enrollment has more than tripled since 1890.

Receipts during the year totaled $120,579,257, of which $18,422,856 was for endowment. Benefactions to colleges and universities totaled $26,670,017, something over $2,000,000 more than in the year previous. In the past seven years the largest increase in income has come through State and municipal appropriations, and the smallest from tuition and other fees. State and municipal appropriations grew from $9,649,549 in 1908 to $23,400,540 in 1914, while fees for tuition and other educational services increased from $15,390,847 to $22,504,529.

The dominant note of the year in higher education is concentration, both in internal organization and in relation to State authority. The movement in the direction of authoritative classification gained momentum during the year, chiefly through the activities of several voluntary associations. The junior-college movement has reached

the point where three States—Wisconsin, Missouri, and Virginia [1]—have gone on record as definitely recognizing junior colleges in the educational system of the State. The Municipal University of Akron, Ohio, was added to the list of city universities, and the new "Association of Urban Universities," established in the fall of 1914, lends emphasis to this municipal-university development.

Degrees conferred by colleges and universities included 26,533 baccalaureate, 5,248 graduate, and 749 honorary. The degree of doctor of philosophy was conferred as the result of examination by 46 institutions on 446 men and 73 women.

PROFESSIONAL SCHOOLS.

As a result of the vigorous campaigns for better standards waged during the past few years, the number of "professional schools" reported by the Bureau of Education is decreasing materially. The number of institutions listed as professional schools in 1914 was 542, as compared with 556 in 1913. There was a falling off of 3 schools of theology, 2 law schools, 8 schools of medicine, and 3 schools of pharmacy. There was an increase of 2 in the number of dental schools. The number of students in professional schools increased from 65,585 to 66,873. Practically all of this increase was in the schools of dentistry, where there were 9,315 students, as compared with 8,015 in 1913, an evidence of the increasing interest in dental hygiene as part of the public program for good health. Graduates in law in 1914 numbered 4,496; in medicine, 4,048; in pharmacy, 2,290; in dentistry, 2,270; and in theology, 1,886. Engineering is not yet classed as a profession in the statistics of the Bureau of Education.

Receipts by professional schools in 1914 totaled $19,608,761, of which $11,450,393 was for medicine, $4,246,501 for theology, $1,831,163 for law, and $1,114,634 for schools of dentistry.

Nowhere has the insistence upon standards been so vigorous and the results so convincing as in medical education. There are now 34 medical schools requiring two or more years of college work for admission, and 50 requiring one year; in 38 of these the new regulation went into effect for the first time in 1914. There are now only 17 medical colleges that admit students on high-school education or less.

The growth in professional standards in legal education is almost equally noteworthy. Of the 122 law schools in the United States, 6 now require college graduation for entrance; at least 8 require two years of college work; and a large number require one year. There has been a corresponding lengthening of the law course. Of the 122

[1] Still more recently Idaho.

law schools listed this year by the Bureau of Education, 1 still reports a one-year course; 17 report courses of two years; all others require at least three years. The law schools had 1,471 instructors and 20,958 students in 1914, an increase of 80 students over the previous year.

TEACHER TRAINING.

No figures are available to show the exact number of graduates of professional training courses for teachers who entered the profession in 1914, but some approximation is possible. Graduates of normal schools, most of whom are destined for teaching in the elementary schools, numbered 20,658 for the year; it is estimated that 15,000 went into the rural schools from teacher-training courses in high schools; and about 5,000 were graduated from college after taking courses in education, most of these teaching in high schools. Add to these a few hundred in graduate courses, destined chiefly for college teaching, and it seems safe to say that between forty and fifty thousand new teachers began work in the fall of 1914 with at least a measure of professional preparation.

It is practically impossible to make any reliable deductions from this as to the present proportion of trained teachers in the schools, since estimates of the average length of the teacher's career vary greatly; but it is clear that the supply of professionally prepared teachers is not yet sufficient for the number of teaching positions that must be filled every year. The need is felt most keenly in the rural schools; it is also felt in the high schools, where the requirement of special pedagogical training is now being added to that of college graduation, and States are offering subsidies, especially for teachers in vocational subjects. It is noteworthy that between 1910 and 1914 the number of institutions engaged in training teachers increased from 1,397 to 1,620, and the students in these schools from 115,277 to 122,446, the latter figure not including students in colleges and universities. The whole teacher-training situation is rendered still more encouraging by the continued remarkable development of summer-school work; of the more than two hundred thousand persons in attendance at all kinds of summer schools in 1914, it is estimated that fully one-third were teachers intent upon bettering their professional preparation.

NORMAL SCHOOLS.

There were 281 normal schools reporting to the Bureau of Education in 1914, as compared with 283 the preceding year. Of these, 235 were public normal schools, including 67 training schools in 59 cities. Students in normal schools in 1914 numbered 95,286, as compared with 94,455 the year before; and 84,095 in 1911. Five new public

normal schools appear on the list, and eight private normal schools were dropped because of failure to report or because they are known to have ceased to exist. Since 1910 the number of public normal schools has increased from 223 to 235 and the number of private schools has decreased from 65 to 46; while the number of students in public normal schools has grown from 75,642 to 89,537, and the number in private normal schools has diminished from 8,453 to 5,749. The 20,658 graduates of public and private normal schools in 1914 represented a net decrease of 114 from 1913.

Public appropriations for normal schools totaled $12,523,968 for the year, as compared with $10,432,252 last year and $2,212,952 a quarter of a century ago. With the complete recognition of teacher training as a public function has come a certain dissatisfaction with the manner in which normal schools have exercised that function, and the whole problem of teacher training is undergoing investigation in several States.

TEACHER TRAINING IN HIGH SCHOOLS.

The urgent need for rural teachers has caused a rapid development in high-school teacher-training courses. In 1914 public high schools to the number of 1,051 were reported as engaged in the work of preparing teachers, and 21,076 students in these schools were taking the training course. This is an increase since 1911 of 440 schools and 6,396 students. Maryland and Ohio established teacher training in public high schools by legislative act in 1914. Two hundred and eighty-eight miscellaneous institutions classed by the bureau as "private high schools," but including a number of "normal and indistrial institutes" also reported that they were training teachers in 1914; they registered 6,084 students in pedagogical courses.

COLLEGE DEPARTMENTS OF EDUCATION.

Schools of education or departments of pedagogy are reported by 352 out of the 567 colleges and universities listed by the Bureau of Education in 1914. It is difficult to ascertain the number of students taking professional work. Many college students proposing to teach take a course in methods for their particular subject; such persons are professionally trained to a very definite degree, but they would probably not be reported in any enumeration of students in education. The attempt made to get this information, which was collected by the bureau prior to 1911, will be resumed in 1915. Of special significance in the development of education as a university subject is the change of Teachers College, Columbia University, into a graduate school, which went into effect in 1914.

VOCATIONAL EDUCATION.

Vocational training as a national problem attracted special attention by the report of the commision on Federal aid for vocational education, rendered in June, 1914. While the comprehensive bill drawn up by the commission was not acted upon by Congress, favorable action is considered likely soon. Congress had already voted the Federal aid asked for in the Smith-Lever bill for agricultural extension education.

THE SMITH-HUGHES BILL.

The Smith-Hughes bill, which formed the report of the commission, but, as noted, did not pass, would have provided Federal aid to public supported and controlled schools of less than college grade for training teachers for agricultural education, trade and industrial education, and home economics, and for paying part of the salaries of supervisors and directors of agricultural subjects and teachers of trade and industrial education. A Federal board of industrial education was proposed, to consist of five members—the Secretary of Agriculture, the Secretary of Labor, the Secretary of Commerce, the Secretary of the Interior, and the Postmaster General, with the Commissioner of Education as executive officer. The appropriation for trade and industrial schools was to be $500,000 the first year, increasing to $3,000,000 annually; similarly for agricultural schools. For teacher training $500,000 was to be appropriated the first year, increasing to $1,000,000 in 1918–19, and remaining at that amount. For every dollar of Federal aid the State or local communities would be required to expend an equal amount, besides meeting all maintenance costs. The States were to create or designate State boards to handle the funds in the several States.

THE STATES AND INDUSTRIAL EDUCATION.

In the various States the progress of the year has been chiefly that of holding gains already made and working out in practice the legislation previously provided. The six States having definite systems for organizing and supervising vocational schools and for lending State aid to local communities—Massachusetts, New York, New Jersey, Pennsylvania, Wisconsin, and Indiana—have all been busy setting up the machinery of administration and extending the operation of the system in additional schools and classes. In each of the States mentioned the vocational schools have been placed under the direction of a special deputy or expert assistant, attached to the staff of the State superintendent or commissioner of education. Connecticut is developing a system of industrial schools, and California has begun the organization of a division of vocational education in charge of a

commissioner of vocational education. New Mexico and Maine also have vocational or industrial divisions in their State departments of education. Several other States have for some time been getting ready to organize State systems of vocational education, but have not been able to decide as to the precise form of organization best suited to their needs.

The most serious problem encountered by communities that have sought to enlarge their facilities for vocational training during the year has been that of procuring teachers who are proficient in the trade to be taught and at the same time with professional training or experience.

Noteworthy in the cities is the tendency toward careful community study for the purpose of securing a definite knowledge of conditions upon which to base an industrial education program.

AGRICULTURAL EDUCATION.

Courses in agriculture were reported by 1,677 high schools in 1914, an increase of 263 over 1913. Students taking these courses numbered 34,367, or 4,552 more than the year before. Some of this high-school work is definitely vocational; most of it, however, comprises brief textbook courses extending from a quarter to a full year. Special efforts have recently been put forth, by means of home projects and otherwise, to give a definite vocational bent to agriculture as taught in high schools. In addition to the 48 State colleges of agriculture there are now 7 other colleges and universities giving agricultural courses of college grade. In both college and high-school work there has been increased emphasis on the practical side of farming as opposed to "book agriculture." The extension work stimulated by the passage of the Smith-Lever bill in May, 1914, is now making rapid headway.

COMMERCIAL EDUCATION.

Students in public and private high schools and independent commercial schools numbered 346,770 in 1914, an increase of 16,231 over the year before. Business and commercial courses were given in 2,191 public high schools, and in 723 private secondary schools. The 704 business schools for which statistics are available reported 168,063 students. There are more than 1,300 such schools on the lists of the Bureau of Education, however; the remaining schools do not respond to requests for statistical information. Recent developments in this field have emphasized on the one hand the demand for a more systematic and practical secondary-school training for commercial pursuits, and on the other hand the importance of a higher professional education for business in institutions of college and university grade.

EDUCATION FOR THE HOME.

Education for home-making and household arts, ranging from cooking and sewing in the elementary school to graduate courses in the universities, has made measurable progress during the year. Definitely organized courses in household arts were reported in 1914 by 252 colleges, 159 public normal schools, 2,440 high schools, and 3,082 cities, towns, and villages. The 66,914 students in the 1,345 high schools reporting in 1913 increased to 79,240 students in the 1,655 public high schools reporting the number of students in household arts courses in 1914, and it is estimated that the approximately 7,500 college and university students taking home-economics courses in 1912 had increased to 12,000. Only a small part of any of this work is at present on a real vocational basis, but the trend of the year has been toward emphasis on the practical in all types of home-economics work.

VOCATIONAL GUIDANCE.

In the cities where investigations preparatory to the introduction of vocational training have been made attention has quite generally been paid to the problem of vocational guidance, and vocation bureaus have usually accompanied or followed the establishment of vocational courses. Philadelphia's new official is director of vocational education and guidance. Significant of the progress of the movement is the taking over by the public schools in whole or in part of the function of vocational counseling. The present emphasis appears to be upon the fact that vocational guidance in public education is not a simple problem of analysis and placement, but involves consideration throughout the child's school life of the problem of future employment. According to a preliminary investigation recently made by the Bureau of Education about a hundred public high schools, representing some 40 cities, had definitely organized, conscious plans of vocational guidance in 1914, through vocation bureaus, consultation committees, vocation analysts, trial vocational courses, systematic visits to industrial plants, or regular courses in vocations. The National Vocational Guidance Association, growing out of the national conferences on vocational guidance which had been held since 1910, was formally organized during the year.

HEALTH SUPERVISION.

Medical inspection is reported by 704 cities of over 5,000 population, out of 1,063 replying to a questionnaire. Of these 704 cities, 402 have school nurses, numbering in all 911. In 140 cities the board of education provides the nurses; in 50 cities it is the board of health that provides them; and in 212 cities other agencies—usually private philanthropies—make possible the nurse service in connection with

medical or health inspection. Noteworthy is the spread of the health supervision movement to the smaller cities. Of the 1,300 cities between 2,500 and 30,000 population, 516 report medical inspection in some form, and 86 have school nurses; more than half of these, however, are in the few States where medical inspection is mandatory by State law.

School clinics to the number of 141 were reported in 1914 by city school superintendents; 109 of these are dental clinics. Psychological clinics are reported from 64 cities.

Investigations made during the year have driven home the fact that rural school children are more in need of health supervision than city children, and recent attention has been devoted more particularly to the rural problem.

EDUCATION FOR SPECIAL CLASSES OF CHILDREN.

The magnitude of the problem of the handicapped child and the extent to which the States have taken over the burden of his education are indicated in the statistics for special schools collected by the Bureau of Education. The 62 public schools for the blind report 665 teachers, 4,971 pupils, and an aggregate expenditure of $2,563,173 for the year 1914. Of the 151 schools for the deaf listed by the bureau, 68 are State schools, 65 public day schools, and 18 are private schools. There are 13,859 pupils taught by 1,689 teachers. The expenditure of the 68 State schools for the deaf in 1914 was $3,777,162.

State schools for feeble-minded children numbered 38; these are confined to 28 States, New York, New Jersey, Massachusetts, and Pennsylvania each having three or more separate schools. There are also 25 private schools for feeble-minded children. State schools reported 381 instructors and 2,328 assistants, with 27,692 inmates, of whom 14,880 were actually under instruction. Expenditures for schools for the feeble-minded amounted to nearly $6,000,000. Public day schools for subnormal children were reported from 54 cities. Thirty-six cities in 24 States made provision for exceptional children for the first time in 1913; and 162 cities in 34 States extended the provision already made. Special training for teachers of exceptional children is now provided in a score or more of institutions of college and university grade.

There are 112 institutions listed by the Bureau of Education as State "industrial" schools. These are schools for delinquents of both sexes, ranging from reform schools of the prison type to modern well-equipped industrial schools for the teaching of useful trades. There are 1,052 teachers, 3,085 assistants who are not teachers, and 54,798 inmates in these institutions, of whom four-fifths are boys. Of the 21,665 boys and girls committed to institutions during the

year, 2,635 could neither read nor write; of the 22,068 discharged during the year, 1,962 could neither read nor write.

LIBRARIES.

There were 2,849 libraries of more than 5,000 volumes in the United States in 1913, an increase of 551 over 1908, the last previous year for which data were collected. The number of volumes reported from all libraries in 1913 was 75,112,935, as compared with 55,350,163 in 1908. Of the 2,849 libraries containing 5,000 volumes or over, 1,844 are classified as "public and society libraries," and 1,005 are school and college libraries. Public and society libraries have an aggregate of over fifty million volumes, with seven million borrowers' cards in force; 1,446 of these libraries were entirely free to the public.

Libraries reporting from 1,000 to 5,000 volumes in 1913 numbered 5,453, of which 2,188 were public and society libraries, and 3,265 school libraries. These libraries contained 11,689,942 volumes. Another group of still smaller libraries, comprising those that reported from 300 to 1,000 volumes, increased the total by 2,961,007 volumes. In all there are now some 18,000 libraries on the lists of the Bureau of Education.

The distribution of library facilities is still uneven, however. More than half of the 1,844 public and society libraries reported for the entire United States were in the North Atlantic States, and they contained 24,627,921 volumes out of the total of 50,000,000; while of the 3,000,000 volumes added to library collections in 1913 almost one-half were for the same section.

Library activity in 1913–14 was marked by considerable extension of the branch system, particularly in the granting of library privileges on the part of cities to neighboring suburban communities; by further development of the county library plan in many States; and in general by a visible growth in the spirit of service that is characteristic of many of the formal educational institutions of to-day. The period of the library as a mere storehouse of books seems to be safely past; it has yielded to a period of direct community service.

OTHER EDUCATIONAL AGENCIES.

The same spirit that has made the library open wide its doors to all the people has caused the museums and art galleries of the country to unlock their treasures and seek in many instances to occupy a very direct relation to the organized educational agencies of the community. Grading off from institutions like these are many other agencies and organizations of whose work little statistical record is kept from year to year at the Bureau of Education or elsewhere, but whose direct educational influence must in the aggregate be enormous.

There are the 300 educational associations, many of them, like the National Education Association and its branches, doing direct work in the professional education of teachers and school superintendents; others, like the National Society for the Promotion of Industrial Education, carrying on a propaganda for education among the general public; and still others, like the Public Education Associations of New York and Philadelphia, investigating city conditions and stimulating an interest in education among the people of the local community. Organizations like the Russell Sage Foundation, the New York Bureau of Municipal Research, the Carnegie Foundation, and the General Education Board, have brought into the work of education the welcome influence of an impersonal, scientific judgment. No record of the year in education would be complete that did not pay tribute to the work these organizations and others of the kind are doing.

Colleges, universities, and normal schools are going far beyond their own walls in carrying education to the local communities. Nearly half the colleges in the United States did extension work last year. The Federal Government itself is realizing, as never before, the desirability of a wide distribution of the scientific information it has collected at large expense of time and money, and many of the bulletins and circulars issued by the Government are now affecting directly the everyday procedure of education. The Boys' and Girls' Club work in the Department of Agriculture and the circular letter service of the Bureau of Education illustrate two different types of the information service of the Federal Government, both of recent development. In the two years ending June 30, 1914, the Bureau of Education issued 112 numbers of its Bulletin, representing about a million separate copies, and covering nearly every phase of educational endeavor for the direct benefit of school officials.

A host of other organizations making no claim to a place in the formal school system are nevertheless doing active work of a directly educational nature. The Boy Scouts, the Girl Scouts, the Camp Fire Girls, women's clubs, parent-teacher associations, musical societies, art centers; these are doing a work whose educational importance is only beginning to be apprehended. The influence of the fraternal organizations is directly educative. The whole vast field of religious instruction in churches and Sunday schools represents an educational problem that is seldom viewed as such because of the larger spiritual issues that are felt to be involved, and because of the traditional separation of church and state in America. Chautauquas, farmers' institutes, lecture courses, the Grange, Young Men's Christian Association and Young Women's Christian Association, social settlements, summer camps, the periodical and newspaper press—these are as truly educational agencies as the schools.

EDUCATIONAL LITERATURE OF THE YEAR.

Much of the significant contribution to educational literature during the year is to be found in the formal reports of investigations and surveys. The Canadian report on industrial education, referred to elsewhere in this chapter, the findings of the Hanus inquiry in New York City, and the Carnegie Foundation report on education in Vermont are typical of this comparatively new type of educational literature. Some of the city surveys are notable educational documents. In somewhat the same category of general survey material might be placed "The General Education Board, 1902–1914," a carefully written account of the board's activities to date; the two-volume report of the Federal Commission on Aid for Vocational Education, the second volume of which epitomizes current American opinion on the subject; and the report of the English board of education on "School and Employment in the United States."

In the domain of more formal educational writing should be mentioned Graves, "A History of Education in Modern Times"; Thorndike's three volumes on Educational Psychology; and several influential books growing out of the New York inquiry—Hanus's "School Efficiency"; McMurry's "Elementary School Standards"; Ballou's "High School Organization"; and Moore's "Indispensable Requirements in City School Administration." The many books in the vocational field include Albert H. Leake's "Industrial Education," Snedden's "Problems of Educational Readjustment," and E. G. Cooley's much discussed volume on "Industrial Education in Europe." Prof. John Dewey's recent writing, which has exerted considerable influence in the discussion of vocational training, has appeared mainly in brief periodical articles. Monroe's monumental Cyclopedia of Education was brought to completion during the year. Two books on higher education that appeared are Sharpless, "The American College" and Thwing, "The American College, What it is and What it may Become."

The rural school discussion has given us many books of method during the year, especially rural school arithmetics, farm life readers, and textbooks on agriculture; general books on rural life designed for teachers; and two or three books dealing in a significant way with the attempt to relate the rural school to country life: Eggleston and Bruere's "Work of the Rural School"; Cubberley, "Rural Life and Education"; Betts and Hall, "Better Rural Schools"; and Harold W. Foght's illuminating interpretation of rural Denmark. Important evaluations of the rural school movements have been given by A. C. Monahan in his "Consolidation of Rural Schools," and "County Unit Organization for the Administration of Rural Schools."

Madame Montessori's "Pedagogical Anthropology," in which her educational theories are set forth more in detail than in her previous work, appeared in English for the first time during the year. Current movements in secondary education are represented by Prof. Monroe's Principles of Secondary Education ("written by a number of specialists"), and Prof. Johnston's symposium on High-School Education. Terman's "Health of the School Child" represents a useful addition to the list of books on school hygiene. Notable among the publications of the year in this field are the proceedings of the Fourth International Congress of School Hygiene. The theory and practice of the kindergarten are stated from several points of view in the report of the Committee of Nineteen of the International Kindergarten Union, published under the title of "The Kindergarten."

EDUCATION IN THE TERRITORIES AND INSULAR POSSESSIONS.

Reports covering the year 1913–14 show that education in the Territories and insular possessions of the United States is making notable progress, the development on the industrial side offering, in the case of Porto Rico and the Philippines particularly, valuable lessons for the various States.

The schools for natives maintained by the United States Government in Alaska comprise 70 schools, with an enrollment of 3,666 pupils. There were 43 schools for whites in Alaska under Territorial control.

The Territory of Hawaii reported 33,288 pupils of all nationalities in the schools in 1913–14, an increase of 350 over 1913. Private-school enrollment decreased by 1,009, while public-school enrollment increased 1,359. The public-school system in the Territory included 168 schools; 713 teachers, of whom 200 are Americans; and 26,090 pupils, with an average attendance of 25,019. Hawaii's expenditures for education in 1914 were $742,310, an increase of $65,000 over 1913, and double the expenditure for 1901.

Enrollment in the schools of the Philippine Islands was 252,959 for September, 1914, an increase of about 100,000 over the year before. The increased enrollment was made possible by better provision for buildings; between March, 1913, and September, 1914, the number of schoolhouses increased from 2,934 to 4,304. The special development of industrial instruction fitted to local needs has proceeded vigorously since the systematizing of the work in 1910, when a plan was adopted designed "to increase industrial efficiency and create an educated class in sympathetic touch with labor and the development of the community."

EDUCATION IN FOREIGN COUNTRIES.

The international character of education has recently been emphasized by the severance of bonds of science and scholarship that had existed so long as to seem virtually indestructible. The outbreak of war in Europe found the nations in the midst of an era of constructive achievement in education. Measures pending during 1913–14 have for the most part been deferred; this very fact, however, makes it possible to evaluate to some extent what is now a completed chapter in educational progress. It is significant that the lines of achievement are much the same in the leading civilized nations; these are mainly the spread of elementary educational advantages to all classes of the population; provision for vocational training by public agencies; and conservation of the health of school children.

The report of the Canadian Royal Commission on Industrial Training and Technical Education, appointed in 1910, was completed during the year; it is an admirable addition to the world-wide surveys of industry and education that are characteristic of our time. Its recommendations called for an annual appropriation by the Government of $3,000,000 a year for a period of 10 years. This represents a considerable sum for a country whose educational system comprises an enrollment of 1,333,971 pupils and a teaching force of 40,496.

The States of Central and South America are actively engaged in extending the advantages of primary education to all their inhabitants; they have long enjoyed the advantages of secondary and higher education and technical training.

In England the school enrollment for 1914 was 5,618,030, practically the same as last year. England and Scotland have both made notable progress recently in the development of welfare activities—medical inspection, open-air schools, and school clinics.

In France recent efforts for development have been marked in the field of continuation schooling. In Sweden a thorough investigation of elementary instruction has resulted in reorganization at a number of points; and Denmark has continued the rural education development which has been such a striking lesson to the rest of the world.

For completeness of the school provision Germany remains conspicuous. The elementary and middle schools, corresponding roughly to the elementary and secondary schools of the United States, enrolled about 11,000,000 pupils, or a little over 16 per cent of the population. There were 26,621 continuation schools in the German Empire in 1912, with an attendance of 1,342,825 pupils.

Education in Austria-Hungary is complicated by an intricate political and racial situation. Illiteracy is high in parts of the dual kingdom, and recent efforts have had to do with reducing it. For

the last year reported, however, the school enrollment was nearly 16 per cent of the total population and 92 per cent of the population between 6 and 14 years of age.

In Spain Government support has of late gradually been secured for reforms in the organization and control of primary schools. An important part of the new policies of the nation is larger control of primary education by the State.

Italy is similarly struggling with the primary education problem. The national appropriation for education in 1912–13 was double that for 1911. There was a direct effort to eliminate illiteracy by transferring the control of primary schools to the provincial authorities in certain cases.

Russia presents a stupendous educational problem. With her hundred and seventy millions of people, scattered unevenly over two continents; with a population composite of many races, the Slav forming but one-half; and with religious conditions that have made for diversity in educational ideals, the establishment of a system of public education in Russia presents difficulties surpassing those of any other great nation. The six million pupils reported in school comprise but 3½ per cent of the total population, as compared with 14 to 18 per cent in most civilized nations. The Government's appropriation for 1912, the last year reported, was $68,000,000, which was an increase of $12,000,000 over the previous year.

In the far East Japan is conspicuous for her development of a modern system of education. There were 7,809,140 pupils in schools of all kinds for 1912 (the last year reported), as compared with 6,627,110 in 1908–9. The expenditures for education totaled $45,000,000. For China it may be said that in behalf of its 300,000,000 people the present Republic is carrying out the educational system as reorganized in 1905, laying main stress on elementary schools and training for teachers.

Another 225,000,000 of people are affected by the attempt to establish a system of modern education in India. Large grants have recently been made from imperial revenues to assist the several Provinces in developing their systems of education.

Australia and New Zealand have been making careful investigations preliminary to changes and improvements in their educational system. New South Wales is experimenting with a type of evening vocational schools having a two years' course. Every State in Australia has provided for medical inspection and supervision of children attending public schools. With an enrollment in public schools during 1913 equivalent to 16.3 per cent of her population, and an average attendance of 89.2 per cent, New Zealand continues to maintain the high standards and progressive spirit that have long characterized the educational work of that colony.

CHAPTER II.

RECENT PROGRESS IN EDUCATIONAL ADMINISTRATION.

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CONTENTS.—Extension of the scope of public instruction—Adaptation of schools to the varying capacities and needs of the school population—Centralization of control, or the development of the larger unit of administration—The scientific attack upon administrative problems—Development of the professional administrative officer or of the profession of school administration.

It is possible to discuss recent progress in educational administration either by describing individual examples of changes in city, county, and State administration, or by discussing critically what appear to be large movements or issues. The second method is followed in the present chapter. Whatever may be lost by omission of detailed description of experiments will be more than offset by bringing into bold relief problems that are of general significance and principles that may be expected to find their application in a great variety of practices. Recent progress in educational administration, as well as the more significant problems for future thought and experimentation, may be considered under the following heads: (1) The extension of the scope of public education; (2) the adaptation of schools to the varying capacities and needs of the school population; (3) the centralization of control, or the development of the larger unit of administration; (4) the scientific attack upon administrative problems; and (5) the development of the professional administrative officer or of the profession of school administration.

EXTENSION OF THE SCOPE OF PUBLIC EDUCATION.

A generation ago free education in most communities consisted of an elementary school course in which children were taught the three R's, together with a modicum of history and geography. Public high schools had, of course, begun to develop, but attendance in these schools was small, and the majority of communities made no such provision for public education. More recently the public high school has come to be recognized as a necessary part of the system of public education. The rapid increase in the number of high schools, and in the number of pupils who attend them, leads one to conclude that it will be only a very short time before high-school facilities are offered

to all of the children of our country. It is in the light of this phenomenal growth of secondary schools in the United States that one is led to ask whether those other and newer types of educational activity, more recently introduced and as yet not widespread, may be expected to be universally accepted and incorporated in our public-school systems. Are we, in other words, ready to provide in our system of free public schools an opportunity for education to all boys and girls and to all men and women who are willing to avail themselves of such provision?

There is evidence in the experiments now under way throughout the United States that the school population is eventually to be measured only by the whole population. At least one may feel justified in suggesting that the extension of the scope of public education to include at the one end of the system kindergartens, and possibly even day nurseries—while at the other extreme are provided senior high schools or junior colleges, summer schools, continuation schools for boys and girls who must go to work, night schools for youth and adults, vocational schools and social centers—points in the direction of a school system that will offer education to everyone who is willing to accept it. A discussion of the advantages to individual children or adults that accrue from this enlargement of the scope of public education may possibly be considered to better advantage in the discussion of the adaptation of schools to the varying capacities and needs of the school population.

The scope of public education has been enlarged not simply in terms of a greater variety of opportunity afforded by schools organized for different groups in the population, but also by reason of the fact that education has come to be thought of as having to do with the physical welfare, with the moral and social training, and with preparation for vocation, as well as with intellectual growth or develments. Responsibilities once centered in the home, the church, or the community activity outside of schools, are now turned over to and accepted by the school. It has been but a step from the inauguration of medical inspection to provision for medical and dental treatment in connection with public education. The older type of school building and equipment was frequently charged with a responsibility for many of the ills developing in childhood. Our modern school plants seek to provide opportunities for play and for correct physical exercises through the gymnasium and through supervised play on the school grounds. The feeding of school children who are hungry, provision for proper clothing, and even pensions for families who are compelled to send their children to school rather than enjoy an income from their labor, are coming to be accepted as corollaries of compulsory education and of our belief in the necessity for physical education.

The moral training of children was formerly provided for by the home and the church. In many communities to-day the school has had to accept an ever-increasing responsibility for the moral development of children. Indeed, one of the problems uppermost in the minds of those who are most thoughtful with respect to our modern social life is the problem of providing adequate moral training in connection with public education. Experiments have been conducted by offering special courses in morals and in civics; schools have organized children to participate in their own government and control, and in some few cases religious bodies have offered instruction in religion during the regular school hours. It is impossible at this time to predict the development in the field of moral education, but probably it is safe to say that such training will eventually be provided as a regular part of the work of our public-school system.

The moral social training of those who have passed beyond the period of regular school attendance is receiving some consideration in our public schools. The establishment of civic and social centers which have involved the discussion of community problems, as well as a better use of leisure time, promises much for the moral development of youth and adults. It is not strange that we have come to realize that in our country, with its constant stream of immigration, the problem of education, whether intellectual, physical, or moral, is quite as much the problem of education of adults as it is the problem of training children.

Through the establishment of continuation schools, with sessions held both at night and during the daylight hours, the public education service had been greatly enlarged. Especially by the establishment of vocational and prevocational schools has the number of those who may profit by public education beyond the compulsory school age been increased. Along with this provision for education beyond the elementary school field, there is developing an increased requirement of school attendance, which may be expected in the near future to raise the age of compulsory school attendance to 16 or even higher.

The extension of the scope of public education to the whole population, and the development of the greater variety of activity upon the part of schools dealing with different groups, lead one to ask whither we are tending. There are those who believe that the efficiency of our public-school system as an agency for promoting social solidarity and social progress will be, and even has already been, interfered with by adding so greatly to the school's responsibility. When we face the issue, however, with respect to any group who need education, the answer seems inevitably to be that the school should provide for them. Our school plants were formerly in use during a very small fraction of the time. We have discovered that

it is possible so to furnish them that they may be made available during three times as many hours as formerly. Our communities can not afford to invest in buildings and equipment for social and recreational purposes while our school plants lie idle.

In like manner, when we ask concerning the greater variety of educational activity engaged in by our modern schools, efficiency in administration demands that the several types of education—physical, intellectual, moral, and vocational—be undertaken by a single institution. It would be unfortunate were we to develop a dual system of education—one to correspond with past educational development, a system of schools preparing people for college in order that they might enter the professions, and another organized for those whose vocational training must follow immediately the fundamental training given in the elementary school. The children, youth, or adults in our school system furnish the only satisfactory unit of administration. Children who are in school must be examined by physicians and dentists, and given such treatment as is necessary. To divide the responsibility for these children by giving the schools charge of their intellectual growth and the board of health charge of their physical welfare is to suggest a duality that does not exist and to open the way for interference and maladjustment in administration.

We have accepted in this country an ideal of public education broad enough to include physical education, moral education, intellectual education, and vocational education. These several types of training are to be made available for all of our people. We may confidently expect, along with the development of greater variety of opportunity for little children and youth, an ever-increasing provision for those who have recently left school to engage in gainful employment, as well as for those adults in the community who may seek special training, or who may meet profitably for the discussion and solution of community problems. Public education is already our greatest single social enterprise. We may expect that it will increase in scope and in significance, even though we may not certainly predict all of the lines along which this development is to come.

ADAPTATION OF SCHOOLS TO THE VARYING CAPACITIES AND NEEDS OF THE SCHOOL POPULATION.

One of the chief problems in administration has always been to make provision for those who vary from the type. Strangely enough, we have in the past been concerned mainly with making a provision that would enable children to move forward in the system a little more slowly or to attempt to master a little less of a common type of education. The equality offered by the school system has, for the most part, been an equal opportunity to take the kind of an elementary school course that led to a high-school course, which in turn

prepared for college and for later professional activity. In recent years our studies in retardation and elimination have led us to consider more carefully than heretofore the problem of adjustment in terms of different types of education, rather than with respect to the time involved in completing a uniform course. There is, of course, a significant adjustment to ability made when group teaching or individual instruction or flexible grading has made possible greater success by individual children. We are facing to-day, however, a much more intricate problem, and all over the country we are experimenting in our elementary schools with classes in which the education given is specialized to meet the demands of varying groups of children.

We no longer think of our work as satisfactory for defective children when we provide for a very slow rate of progress and a minimum of accomplishment. Rather, we have come to accept the fact that these children need most of all a kind of training which will render them productive members of society. We are providing as well against a possible danger to the larger social group by arranging for custodial care, or for the sterilization of the mentally defective. In most of our larger cities some provision for slow and for defective children has already been instituted. In some of the States the problem has been attacked. In New Jersey, for example, a State law requires that provision be made for children who are three or more years behind the grade for their age.

In many school systems classes have been organized for those who are anemic or tubercular. These open-air or open-window classes involve a régime which plans definitely not simply to correct an unfortunate adjustment in the ordinary class, but also to provide for definite physical growth and development for a group of children who are particularly in need of special treatment. Stress is laid in this case upon the physical aspect of education. A different type of special adjustment is found in the schools for the deaf and for the crippled. For these children differences in method, in equipment, and in courses of study provide opportunities that may be significant to them while in school and give them a kind of training that will make them self-supporting in later life. A special adjustment with respect to moral social training is provided in day truant schools and in parental schools. We are no longer satisfied with a scheme of administration which removes from the school system the truant or incorrigible child. We are concerned, rather, with providing such education as will bring the child back into the school system better educated with respect to the field of his particular deficiency.

These attempts to adjust our school systems to the varying capacities and needs of children are relatively more simple for the larger cities than for smaller communities or for more sparsely settled parts

of our country. In the small city the problem of adjusting the school system to the varying groups of children has not infrequently been solved by organizing an ungraded class in which individual instruction is given. In a single group of 10 or 12 children there may be found those who are backward or mentally defective, those who need special treatment on account of physical defect, together with a boy or girl who may need special disciplinary treatment. For the rural school situation State institutions have in some measure taken care of particularly aggravated cases. With the development of the county as a unit for the administration of public education we may expect special schools, either day or boarding, to be provided for special groups of children. The problem of transportation to county day schools is somewhat more difficult to meet than the corresponding problem in cities. It is well, however, to note the fact that our city school systems have had to face the problem of transportation and of custodial care for children in order to provide these special opportunities.

Throughout the United States more care has been taken to provide special classes for the defective or delinquent than for especially capable children. A few experiments have been made which go to show that bright children can, when the opportunity is offered, not only save time but also do more significient work when special provision is made for them. Experiments in Baltimore, Indianapolis, and Worcester seem to confirm this statement. Many children of more than usual ability become inefficient by virtue of the fact that they are placed in classes with children of much less intellectual capacity. Any adequate adjustment of our school system to the varying capacities of children, or any claim to equality of opportunity, can be justified only when children of unusual capacity are segregated, especially beyond 12 or 13 years of age.

One of the most significant outcomes of the present movement for junior high schools may be found in the possible adjustment which can be made in this type of institution to the several groups of children who complete the first six grades of the elementary school course. A junior high school which offers the traditional course in preparation for later high-school work and for college might very properly segregate the capable children who desire to undertake this kind of work. In any such school provision for those who are to enter the commercial field can very properly place emphasis upon studies that have direct application in this field. Indeed, in the latter part of such a three-year course considerable skill in bookkeeping, penmanship, rapid calculations, stenography, and typewriting may be required. For another group of pupils the prevocational training in the industrial or household arts will take account of natural

aptitude and ability, as well as possible future vocation. It is not necessary to assume in such a course that a boy or girl will remain interested in the field first chosen, or that he is placed for life by choosing any one course that may be offered. It should be possible to shift from one course to the other, and with the three-year senior high school following the first period of three years it should be easily possible for any pupil showing unusual ability to take the more extended training which will lead to college, or to positions of greater responsibility, by virtue of a larger outlook and more significant technical training, in the fields of commerce and industry. In rural high schools, and in some city schools, one of the options both for the junior and senior high-school course will be in the field of agriculture. It would be unfortunate, however, to confine the rural high school to agriculture, just as it would be to confine the city high school to the demand for such labor as might be found in the immediate vicinity of the high-school plant. A primary function of secondary education is the discovery of particular capacity or ability, and it has never been seriously argued that these capacities or abilities upon the part of children are directly related to the environment into which they chance to be born.

Along with the development of the newer type of high school, excellent examples of which may be found in Los Angeles and Grand Rapids and in the secondary vocational agricultural schools of Massachusetts, there have grown up in many places special types of schools that are called prevocational and vocational schools, continuation schools, and trade schools. All of these schools belong in a very significant way to the secondary school group, since they assume as a foundation a definite preliminary fundamental training such as is ordinarily provided in the first six years of our elementary school course. Prevocational schools, which look toward preparation for work in the industries, have been established in many of our cities. The best examples are probably to be found in Massachusetts, New York, and New Jersey, although individual schools of excellence may be found in many communities in other States. Continuation schools have been established in many communities, and have been known over a long period of years as night schools. These schools have, for the most part, been concerned with a type of training comparable to the regular elementary or high-school course. More recently continuation schools have undertaken prevocational training, or a kind of vocational training which supplements the work done in the industries. Provision has been made in a number of communities for day work in these schools. One of the first examples was the continuation schools of Cincinnati, in which the employers not only allowed the pupils to be absent from the shops, but also paid for the time taken up by school work. We may confidently expect an increase in the pro-

vision made for this type of work. We are beginning to realize that the responsibility for educating a boy or girl does not end with the compulsory education period or with the entering upon gainful employment. Indeed, coincidentally with the decay of the apprenticeship system in the United States has come the realization of a large and ever-increasing responsibility for making provision for supplementary training, both general and vocational, for those who go to work before they have reached maturity.

Public school systems, in order to offer that quality of opportunity which is promised by our democracy, must continue to differentiate schools and classes in terms of the varying interests and capacities of children. At the same time the needs of the school population, which are in the final analysis the needs of the whole population, must bring about another type of differentiation that will take account of the many fields of endeavor in which people are engaged, or for which they are to be prepared. We may confidently expect that our school systems will become more complex as they succeed in providing adequate educational opportunity for all of the people.

CENTRALIZATION OF CONTROL, OR THE DEVELOPMENT OF THE LARGER UNIT OF ADMINISTRATION.

Many of the reforms which have been undertaken by way of enlarging the scope of public education, and in the direction of equalizing opportunity, have been confined to large city school systems. Progress in these directions, especially for the smaller urban communities and for the rural population, must depend upon the development of more highly centralized State systems of control and upon the increase in the size of the administrative unit.

It is the peculiar function of the State, as opposed to the local community, to provide for an equalization of opportunity through the organization of an equitable system of taxation, the significant distribution of school moneys, and the inspection and supervision of schools. Adequate control upon the part of the State can be brought about only through the development of a State educational office which has been freed from politics and which has been given sufficient financial support. In recent years several of the States have created State boards of education, whose duty it has been to discover the most able administrative officer available for the post of commissioner of education. In many cases the law has provided for deputy or assistant commissioners, chosen upon a like basis. Laws of this sort have been passed during the past few years in Massachusetts, New Jersey, Idaho, Pennsylvania, Nevada, California, and South Dakota. In the two States in which this form of organization has been in operation longest the results already achieved seem to justify the change that was made. State boards, consisting of members appointed by the governor instead of persons who serve by virtue of some other

office which they hold, can be expected to render significant public service in choosing, without political consideration, the executive officers for the State education department, while at the same time they represent as a legislative body the people of the whole State for the determination of educational policy.

When the State education department is organized under the direction of professional specialists we may expect to develop a type of control and supervision which will equalize opportunities throughout the State. In most of the States to-day there is need of a revision of the basis upon which State moneys are paid to local communities, both for the sake of enforcing State control with respect to compulsory education, proper buildings and equipment, adequate training for teachers, and the like, as well as for the encouragement of newer types of education, and for the equalization of the burden which the community bears in the support of schools.

The type of control exercised by the State need not necessarily result in a stifling uniformity of organization, curriculum, or methods of teaching. Under the direction of the specialists who are found in the State department one might hold that schemes for organization, for curricula, or for methods of instruction, as provided by the State department, be followed unless the local community had an experiment or variation from the State requirement which they submitted for criticism and approval. Any wise executive would seek to encourage variation and experiment, especially when it is realized that there are in every State many communities that are, and would continue to be, in advance of anything which might be required of all communities by the State department. The requirements of the State department would, of necessity, be expressed in terms of minima, rather than in terms of maxima.

The case of the courses of study will serve to illustrate the point of view expressed above. In many communities there is little or no attempt to provide any adequate organization of subject matter or significant suggestion with respect to methods of teaching. In these communities, the tenure of teachers is extremely short. Our States have provided manuals or State courses of study which have done much to increase the efficiency of these schools. There is need, however, in many States for a more significant and probably more elaborate presentation of this material for the sake of teachers who are inexperienced or poorly trained. This need is not confined to the elementary school. In the high schools young men and young women are attempting to teach with little professional training. A document like that recently issued by the commissioner of education of New Jersey, on the teaching of plane and solid geometry, would be of very great assistance to most beginning teachers of these subjects in American high schools.

The necessity for State control has been most apparent in the attempt to establish State-wide vocational education. In this field there has been need for special assistance to those communities which were willing to undertake this newer type of public education. Much of the success that has been achieved in the organization of these schools has come about through the inspection and supervision given by the State departments concerned, rather than through the appropriation of State money which has been enjoyed by the local community. It may be said in passing that control by the State of local educational activity can always be made most effective through the granting or withholding of State funds.

Many examples of the growing tendency to centralize control in the State office might be cited. The certification of teachers is being taken out of the hands of local authorities, not necessarily in order that the requirement for entering the teaching profession be made uniform, but rather in order to make sure of a minimum qualification for those who are to teach. Textbooks are being chosen for the whole State by textbook commissions or others empowered by the State with this authority, in the hope that better books will be made available for children, and that the buying of books by parents will prove less burdensome than has been the case under the varying systems of local adoption. State-wide medical inspection has been provided for in recent legislation, and will in all probability be carried out in the more backward communities much sooner than would have been the case had local initiative been depended upon. Provisions for pensions and for minimum salaries for teachers have in many cases increased the efficiency of local schools by providing for a higher grade of teacher.

Whatever control may be vested in the State board of education and its executive officers must be supplemented by the local administrative authority. Most American cities enjoy the right to control in considerable measure public education through the organization of local boards of education. If we omit the larger cities the units of control in New England have been the town, and in other parts of the country the county, township, and district. The town system has been modified to some extent in New England through the consolidation of towns for supervisory and administrative purposes. In the South, the county unit has offered an opportunity for improvement in administration that has not always been utilized. In most parts of the United States to-day, outside of New England, any significant improvement for village and rural schools seems to depend upon increasing the size of the administrative unit. Our present political organization, together with the experience of some of the States in which the county unit has been utilized to advantage during the past few years, points unmistakably to the advantage

to be gained by utilizing this unit of administration. Outside of certain Southern States—Maryland, Kentucky, North Carolina, Georgia, Florida, Alabama, Louisiana, and Tennessee—two States, Utah, with seven counties organized into a single school district, and Ohio, with recent legislation with respect to county organization, are already experimenting in this field. In many other States, State teachers' associations, State departments of education, and other agencies are advocating the county unit of administration as the only possible solution of the rural school problem.

When the county unit has been established, with a county board of education elected at large, whose duty it is to secure a professionally trained executive officer, who will in turn appoint, subject to the confirmation of the county board, assistant executive and supervisory officers who will be charged with special responsibilities, the problems of the village and rural school may be expected to receive more careful study and more satisfactory solution. What is needed in most counties is not a supervisory or administrative officer for each township or other division, but rather a central organization with a corps of specialists, whose duty it is to deal with the several aspects of the school situation. In one representative county there is a superintendent of schools, a supervisor charged with special responsibility for the work of the upper grades, a primary supervisor—each of these supervisors having an assistant; a supervisor of industrial arts, with assistants; a supervisor of household arts, with assistants; and two supervisors of one-room rural schools. With such an organization it has been possible to bring about an ever increasing efficiency for all of the schools of the county. With a smaller administrative or supervisory unit, employing but one executive or administrative officer, many of the problems of these schools would have had to be neglected, or would have received less adequate treatment at the hands of the one who had to solve all of the problems.

The tendency to centralize control in public education in State offices, under the direction of State boards of education, and with the immediate control of professional executives and supervisors, is one of the most significant measures of progress in modern school administration. Progress in educational administration depends in no small measure in freeing our schools from political control. A lay State board of education, with no axes to grind, may be expected to choose able men as State commissioners. County boards of education, with the resources of a county rather than of a township or district behind them, may be expected to choose a professional specialist for the position of county superintendent of schools and to support him in the development of an adequate county school system.

THE SCIENTIFIC ATTACK UPON ADMINISTRATIVE PROBLEMS.

From time immemorial administrative officers have presented, in reports to the public, data with respect to public education in support of administrative procedure and for the sake of securing support for new measures of efficiency. In recent years the data so presented have become increasingly significant by virtue of a growing professional interest and the development of a scientific attack upon the problems of administration. It is not uncommon to find in a school report to-day a table of attendance so distributed as to depict not a mere statement of average but the whole situation, including a measure of that which is most common, the extremes, and the variability. Age-grade tables and data which make clear the progress of children through the public-school system are to be found in the better school reports. Agitation for a permanent continuing census as the basis for the enforcement of compulsory education is reinforced by the organization of this service in some of the larger cities, notably New York, Philadelphia, and Rochester. Cumulative records, which make it possible to trace the history of children during their whole school life with respect to attendance, scholarship, health, and progress, have been recommended by the Department of Superintendence of the National Education Association and by the United States Bureau of Education and are already in use in hundreds of school systems. Scales or tests for the measurement of the achievements of pupils have been derived and are applied in most of our more progressive school systems. Records of such measurements have been made available through reports which enable school systems to make more adequate comparisons among themselves than were formerly possible. School accounting has, in some instances, been so improved as to indicate with definiteness the purposes for which all money is spent in terms of the particular service secured, and also with respect to the particular division, school, or subject taught. A system of accounting has been suggested by the committee of the Department of Superintendence of the National Education Association, in cooperation with the National Association of School Accounting Officers, the Bureau of Education, and the Bureau of the Census, which will make possible a complete analysis of school costs.

Not least significant in this movement for the development of a scientific attack upon administrative problems is the work which has been done in the organization and conduct of State and municipal school surveys. From the standpoint of administrative practice, a school survey may be defined as an inquiry concerning public education which seeks to evaluate the work of all of those educational agencies supported in whole or in part by public moneys with respect to their organization, administration, supervision, cost, physical equipment,

courses of study, teaching staff, methods of teaching, student body, and results as measured by the achievements of those who are being trained or who have been trained therein. The demand for efficiency on the part of all public servants and the growing belief in the possibility of evaluating the work of our schools will doubtless operate to bring about many more surveys within the next few years. Those who have made school surveys have sought to apply scientific methods in the conduct of these inquiries. It will be well to review carefully the principles which should control and the methods which have been employed in this field.

The attempt to evaluate current practice and to increase the efficiency of schools has always been a function of the administrative and supervisory corps of our school systems. School surveys are to be thought of as supplementary to the regular work of the supervisory staff. As our school systems develop bureaus of investigation and research, such as have already been established in New York, Chicago, Boston, Baltimore, Detroit, New Orleans, Kansas City, Oakland, and elsewhere,[1] there will be less need for the survey as we now know it. In all communities, however, there will be occasions when expert knowledge will be desired and when specialists outside of the regular supervisory staff will be called in. The lay public and the educational profession will come to recognize that the calling in of specialists for the purpose of consultation is not a reflection upon the efficiency of the superintendent, the board of education, or the members of the teaching staff, but rather a recognition of the complexity of the educational problem and of the development of specialists in the profession of educational administration.

Surveys, if they are to serve any useful purpose in education, must be constructive. We judge the work of a supervisor by the growth and development of those who are supervised. In like manner the survey, as a supplementary agency, is to be judged not in terms of the weaknesses or deficiencies which it discovers, but rather by means of the suggestions for development and improvement which are contained in it. It is necessary, of course, to discover wherein a school system is weak before any adequate remedies can be suggested, but the survey which is concerned mainly with a statement of deficiencies can not accomplish much in the way of improving the work of teachers or administrative officers, and will probably result in destroying that public confidence which is so essential for the development of a strong school system. This constructive aspect of the work of the survey may be expressed by saying that it is the primary business of the survey staff to teach.

The improvement or development of a system of public education involves the education of the community, as well as the teaching of

[1] See also p. 39 of this report.

teachers or the consultation with supervisory or administrative officers. A survey should seek to secure a large measure of public support for the constructive program proposed. To this end, members of the survey staff should meet with groups of interested citizens for the sake of discussing educational problems and for the presentation of the program for development which has resulted from the inquiry.

A survey can never legitimately seek either to discredit or to accredit any individual member of the supervisory or teaching staff or other employee of the board of education. The responsibility for securing adequate administration and supervision rests with the board of education. The nomination of assistants to the superintendents or supervisory officers, of principals, and of teachers, and their placing in the school system, should be in the hands of the superintendent of schools, subject to confirmation by the board of education. In like manner, individual inefficiency upon the part of assistants to the superintendents or members of the teaching corps should be discovered as a regular part of the supervisory or administrative activity vested by the board in the superintendent of schools. It is not probable that any survey commission could become well enough acquainted with the work of individuals either legitimately to praise or to blame. It is certainly not desirable that they should be expected to pass upon the qualifications of employees of the school board. A school survey should be conducted upon an impersonal basis.

In the foregoing paragraphs there have been presented those principles which are fundamental in the conduct of school surveys. There remain to be discussed the methods to be employed in the attempt to measure or to evaluate the work of the school system. The writer is able to distinguish three methods that have been employed, each of which seems to have its place in the work of the survey. These methods or means may be named as follows: (1) The consensus of opinion or of judgments of specialists; (2) the comparison of the school system surveyed with other school systems; (3) the measurement of efficiency by means of scales or units of measurement.

The judgments of specialists.—In education, as in other forms of human activity, there will always be a place for the judgment of any one who is recognized in his particular calling or profession as a specialist with respect to the practice involved. If a group of such specialists, after careful observation and study, agree in their diagnosis of the situation and with respect to the remedy to be invoked, we are usually willing to act in accordance with their judgment. It is important to emphasize the fact that a consensus of judgment is what is taken, rather than an agreement which has resulted from the judgment of one who has secured the approval of others. It is easily possible to find a dominating personality whose judgment may be poor, but who may nevertheless impose it upon

others. The members of a survey commission, in so far as they attempt to evaluate the work of a school system on the basis of their individual opinions or judgments, should be careful to record these judgments individually and to value most highly those judgments which they have in common. The survey should not be a series of monographs prepared by specialists, but rather the report of a board or committee who have been able to agree in the recommendations which they make.

The record of opinion which the specialists make should be put in such terms as can be easily understood by teachers. The judgment of a philosopher may be sound and yet couched in such language as to be unintelligible to the rank and file of the teaching profession. Keeping in mind the teaching function of the survey, the specialist should seek to express his judgment in terms which apply to the every-day practice of the classroom. For example, it is essential that any criticism of the quality of teaching should be expressed in terms of those criteria which apply to the different types of teaching. There are doubtless general criteria or aims of education which can be interpreted by the philosopher in such a way as to be applicable to many different types of classroom procedure. The survey may not assume this power of interpretation upon the part of the teaching corps, but would rather embody such criticism and suggestions as may seem necessary in terms of criteria applicable to the drill lesson, lessons involving thinking, lessons for appreciation, study lessons, and social and disciplinary phases of school work.

Comparison of the school system.—A comparison which may be instituted among several school systems with respect to their organization, curricula, methods of teaching, costs, and the like is a legitimate part of a school survey. Our common practice is the result of the best judgment of many men working in many situations over a long period of years. That which is less efficient tends to be eliminated, and that which is most worth while to persist by the process of trial and success. A school system which shows great variation from common practice with respect to its curricula or time allotment for studies or costs should be most carefully scrutinized with respect to the functions which show this variability. Conformity to the common practice may not be absolute proof of efficiency, but it at least suggests the exercise of judgment in conformity with that of others who have attacked the same problems.

Measurement of efficiency.—Much is to be gained by applying units or scales of measurement which will enable us to make more accurate comparisons than have been commonly instituted heretofore. By applying scales in handwriting, in English composition, or carefully derived tests in arithmetic, spelling, or reading, it is

possible to compare the achievements of pupils among several school systems and within the several units of a single system. These results will often show satisfactory work for the school system, or for some unit or units within it, and will, on the other hand, sometimes discover a remarkable lack of achievement. The more frequently such measurements of achievements are undertaken, the more valid will be the comparison which can be instituted and the more nearly we may hope to arrive at a statement of a standard. It is not only with respect to the work done in school studies, however, that such units of measurement are available. The efficiency of the enforcement of compulsory education can in some degree be measured by the time elasping between the beginning of the period of truancy and the period at which the pupil is returned to school. The adaptation of schools to the individual differences of pupils is indicated by a careful study of retardation, acceleration, and elimination. One might judge of the efficiency of medical inspection in terms of the better physical condition of pupils. The costs of various parts or units of the school system can be determined if an adequate system of bookkeeping has been established.

In all the work of the survey it is necessary to observe, to measure in so far as possible, and to report upon the condition of the community's political, industrial, social, and educational life that favors or interferes with the work of the schools. Indeed it is not possible to suggest a program for the development of a school system without a thorough-going appreciation of the community's present status and of its needs. The contact of a survey commission with groups of interested citizens, as was suggested in an earlier part of the discussion, may serve in considerable measure to furnish this social background, but wherever possible a more painstaking and precise study of conditions should be undertaken.

Surveys which are understood by the teaching profession and by the lay public as supplementary to the regular activity of the supervisory and administrative corps; which undertake to teach through appreciation of that which is worthy; which seek to capitalize the successes of the school system; which involve the discovery of weaknesses only for the sake of suggesting a program for growth and development; which are conducted upon an impersonal basis; which endeavor to help and to stimulate rather than to find fault and to destroy—from such school surveys we may expect to derive much which will make for the greater efficiency of our public schools.

The development of the school survey as a supplement to the regular work of the supervisory and administrative staff of the school system suggests the possibility of developing in our schools a system of inspection which will take the place of our present practice of placing responsibility for successful work upon local administrative

officers and teachers. If such were the result, it would be most unfortunate. It is rather to be hoped that the methods of those who undertake school surveys may become, in so far as they are valid, the methods of the local administrative officers and of the local teaching corps. One of the elements in our present situation that seems especially worthy is this feeling of responsibility for successful work which is found as a part of the professional consciousness of most teachers. To substitute for this responsibility an attitude of subservience to an inspecting authority, and an attempt to cram children to get them past examinations, would be most unfortunate. State and county administrative officers will do their most significant work in the training of teachers to a higher degree of efficiency through careful supervision, rather than through a system of inspection which seeks to secure a uniform product.

The development of a scientific attack upon the problems of administration may be expected to make rapid progress during the next few years. Through the data accumulated in the reports of superintendents, through the work of special departments of research and investigation in our larger city school systems, by means of the collection of significant data by State officers, by means of systematic inquiries or surveys of educational activities in State, county, and city, and through the study of education in our professional schools, we may hope to measure more significantly than heretofore our educational practice and to establish with greater certainty the principles upon which we base administrative procedure.

DEVELOPMENT OF THE PROFESSIONAL ADMINISTRATIVE OFFICER OR OF THE PROFESSION OF SCHOOL ADMINISTRATION.

When we seek to review recent educational progress, whether we are concerned with the enlarged scope and complexity of our educational system, with the problem of adapting our schools to the varying capacities and needs of children, with the tendency to enlarge the administrative unit and to increase the responsibility of professional administrative officers, or with the development of a scientific method of attack upon administrative problems—all of these seem to point unmistakably in the direction of the development of a profession of educational administration as distinct from teaching. There was a time when a single school, organized for the sake of a few families in a local community, could be supervised more or less adequately by the local minister. With the development of professional knowledge with respect to the theory and practice of teaching, it was necessary to draft from the teaching corps one conversant with this field who could supervise and direct the work of others. In many cases, as we have developed larger school systems, the work of the chief executive officer has consisted in no small

part of attending to office routine and business management. There is a tendency in our modern school organization to provide for the business management of our schools by employing a business agent who works either under the direction of the superintendent or as an officer coordinate with him in authority. Whatever the solution of this problem may be, it may be asserted without fear of contradiction that the work of an administrative officer, whether State, county, or city, is of sufficient significance on the professional side to challenge the most able. In the development of the profession of educational administration we may expect to recruit our forces from among those who have had experience in teaching and in the supervision of teachers. We must expect to add to their equipment a more thoroughgoing knowledge of the sciences fundamental to education—psychology, sociology, and biology (especially as it has reference to normal physical development and to hygiene), together with training in economics and in government. Not least significant will be the work in educational administration which will make available a scientific method of attack upon administrative problems. Such courses of instruction are already offered in several of our American universities and are being taken by large numbers of superintendents of schools both during a year or more which they give up to professional study and during the summer sessions which are held in connection with our leading universities. The position of State commissioner of education or county or city superintendent is in increasing measure being freed from political control. These positions offer one of the largest fields for public service. We may confidently expect the development of an increasingly efficient group of professional educational administrative officers.

CHAPTER III.

PROGRESS OF SCHOOL SYSTEMS IN CITIES OF MORE THAN 25,000 POPULATION.[1]

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CONTENTS.—Administration—School surveys and school supervision—Reorganization of grades—The intermediate school and industrial education—The vocational trend in education—Other topics emphasized in the annual reports.

One year is too limited a period in the slow evolution of education to include any marked developments not on trial or at least under discussion in previous years. A review of a single year's activities may, however, serve to show what changes of emphasis upon the varied activities of school systems are disclosed in annual and special reports, and thus to indicate general tendencies as well as special instances of an experimental nature that seem to have promise for the future.

ADMINISTRATION.

In the field of administration the effect upon school systems of changes in form of city government may be noted. In some portions of the country, school systems are so absolutely separate from other city affairs that a change in the form of city government does not affect them. This is the case in Dayton, Ohio, and Springfield, Ill., which have adopted the city manager plan; but in St. Paul, Minn., and Buffalo, N. Y., the commission plan includes the schools along with other departments. The commission form of government went into effect in St. Paul on June 1, 1914. The commissioner of education, who also has charge of the public library and of the municipal auditorium, is one of six commissioners elected at large, each of whom is assigned by the mayor to a particular department.

The commissioner appoints for a term of two years a superintendent of schools, whose salary is fixed by the charter, a public librarian for two years, and a superintendent of the auditorium for two years. In this way the public schools, the public library, and the municipal auditorium are closely affiliated for harmonious educational work.

The commissioner of education appoints the whole teaching staff, on recommendation by the superintendent of schools. The commissioner has no power of initiative in appointing teachers, but he

[1] For a review of progress in cities of less than 25,000, see p. 61.

may remove for cause on his own motion or on complaint of the superintendent. It is the intent of the charter that all teachers and principals once appointed shall serve during efficiency and good behavior. The commissioner also appoints a superintendent of school buildings, who has charge of all school buildings and school grounds.

The charter also provides for an advisory school board of 12 members to be appointed by the commissioner, one from each ward of the city. The powers of this board are purely advisory, but the members may visit schools and discuss in meetings any subject related to the schools. The meetings are public.

The charter also provides for an advisory board of not less than 8 and not more than 12 teachers. This advisory board is elected by the teachers by secret ballot. The charter provides that this board shall advise with the superintendent and the commissioner of education on problems relating to textbooks, courses of study, and methods of teaching. The powers of this board, also, are purely advisory, and the charter explicitly declares that "The adoption of such recommendations shall lie in the discretion of the superintendent of schools and the commissioner of education."

The management of schools by a single commissioner instead of by a school board is a radical departure in school administration. It is a perfectly logical feature of a commission form of city government, but there is as yet little or no experience by which to judge its permanent value. Elsewhere, even under the commission form of city government, the schools have been regarded as an interest so vitally important as to justify a commission charged solely with their management, this commission being the school board. In the short time that the St. Paul plan has been in operation it is noted that all professional business, such as the appointment of teachers, the installation of machinery for manual training, and the opening of new rooms or new classes, has been transacted with great expedition, without the delay involved in waiting for school-board action. It remains to be seen whether in other respects this plan has in it the elements that favor its survival. At the present time it must be regarded as an interesting experiment.

In Buffalo, N. Y., the commission charter recently adopted provides for (1) a superintendent of education to be appointed by the commission, and (2) a board of education, consisting of five members, also to be appointed by the commission. It is difficult to see how the schools can be safeguarded from political domination under such a charter, or how harmony can result from an arrangement whereby the school board and superintendent hold their positions at the will of the same governing body and the school board is without power to choose its own executive officer.

SCHOOL SURVEYS AND SCHOOL SUPERVISION.

Prior to the present school year some 20 formal school surveys had been made by outside examiners and the findings published, the first being that of Baltimore, Md., under the direction of former United States Commissioner of Education Dr. E. E. Brown, and the latest that of Portland, Oreg., under the direction of Prof. Elwood P. Cubberly, head of the department of education, Leland Stanford Junior University. The year 1914 has been less productive in this direction than any one of the three preceding years. Springfield, Ill., and South Bend, Ind., are cities in the group covered by this chapter that report such surveys as having been made during the current year.[1] The Springfield survey was made by the Russell Sage Foundation and the survey of South Bend by the department of education of the University of Chicago.

The motives that have inspired these surveys have for the most part been commendable, and even those which for local reasons have not been immediately productive of improvement within the system surveyed have contributed their quota to the sum total of experience in this new field of educational effort. The service which the surveys thus far made have rendered to individual school systems, however great it may have been, is far surpassed by the widespread tendency which both indirectly and directly they have stimulated toward self-examination within the school system. The critically judicial attitude now manifested by the majority of reporting officers, which has replaced the attitude of self-complacency so conspicuous in superintendents' reports of a former decade, is one of the most noticeable features of the current year.

Not many years ago Dr. J. M. Rice, the pioneer outside investigator of school systems, said that experience had taught him to place no reliance whatever on reports published by school officials regarding the condition of their schools, such reports being frequently no more than political documents, and consequently, as a rule, entirely misleading. There is no surer indication of the great change for the better that has come about in school administration than the frankness with which defects are set forth in reports and the temperate statement of merits claimed. The supervisory officers by no means regard themselves as being most acceptable in their several communities when they pose as presiding over schools which have little to desire in the way of improvement. On the contrary, for the most part they regard themselves as most useful when they show themselves able to see defects and to suggest remedies—a remarkable change, indeed, in the 18 or 20 years since Dr. Rice did his pioneer work. Several of the larger cities have established permanent bureaus of effi-

[1] For additional city surveys, see p. 79, 513.

ciency. Those of Baltimore, New Orleans, Rochester, and New York City were mentioned in the Report of the Commissioner of Education for the year 1913. Since then similar departments have been established in Boston, Mass.; Detroit, Mich.; Kansas City, Mo.; and Oakland, Cal. Baltimore has discontinued its bureau, whether temporarily or permanently is not stated. The Boston "department of educational investigation and measurement" and the Detroit "department of educational research" are operated along similar lines, though the Boston department has set for itself one task not specifically mentioned in the Detroit list of undertakings, namely, to work out a plan for the promotion of teachers on the basis of merit. In the Detroit report the aims of the department are stated as follows:

1. To measure the efficiency of the teaching in the Detroit schools.
2. To increase the number of children benefiting by school work.
3. To eliminate waste in subject matter and methods.
4. To aid in the adjustment of school training to the world's needs.
5. To help teachers give greater assistance to individual children in accordance with their peculiar weaknesses.
6. To set up objective standards, reasonable because based upon the measured ability of children, so that each child may have the pleasure of success.
7. To aid the superintendent and others in the preparation of reports.
8. To aid in the continued professional training of teachers.
9. To supply any information about the Detroit system that may be wanted.
10. To maintain year after year a critical study of the Detroit public schools in order that each year the same may be made more efficient.

This Detroit enterprise emphasizes a tendency which has very recently developed in our large cities toward placing all experimental work in the hands of one person who can give it his undivided attention. The Detroit department, besides furnishing the statistical and reference service common to all such departments, proposes to conduct such researches as the department can carry on through paid assistants, and in addition to organize and direct educational research among volunteer workers in the school system. This is to be cooperative work. By subdividing the various investigations into small parts, only a few hours' time on the part of any one teacher will be required. Not every teacher is fitted by training to take part in pure research, nor is every teacher desirous of participating. It is believed, however, that in Detroit enough volunteer workers will offer to cooperate in a clearly outlined plan that has for its general purpose the lightening of the labor and burden of teaching, which is "the blind unsuccessful struggle against unrecognized obstacles." To this end tentative standards of measurement of results in arithmetic, handwriting, English composition, and spelling, based upon the measurement of many thousands of children in Detroit and other cities, are explained, and the aim set up to determine the degree of skill that should be developed. Methods are to be found "which

will develop optimum degrees of the mechanical skills with the least expenditure of time and effort." These are to be desired "because of the large amount of time that would be set free for work of greater value." The standards arrived at leave the teacher free to choose his own methods of securing an output of the quality desired.

"The whole effort toward standardization has for its purpose not the increase of mechanical drill work, but its reduction to a safe minimum." The clear recognition which the Detroit department of educational research gives to the fact that in the three R's it is a waste of time to drill for the attainment of standards of work that are beyond the reach of a majority of the children constitutes a service in a field in which an authoritative statement of this kind was much needed. It may yet be possible to retain the best features of our enriched curriculum by utilizing time saved from needless and fruitless drill. We need not fear that standardization of the three R's, the tools of education, will affect adversely the work as a whole. On the contrary, it will set free a vast amount of misdirected energy that may be applied to really educative work.

Newton, Mass., and Orange, N. J., furnish instances of university and city cooperation in establishing standards. The Harvard-Newton experiment was in the direction of developing a scale of measurement in composition; that of Teachers' College and Orange arrived at a uniform method of marking examination papers.

In numerous instances surveys are being systematically made by the regular teaching and supervisory force. Some of these are limited in scope; others cover the entire field. As instances of the limited survey, East Saginaw, Seattle, and Lawrence may be mentioned as typical—East Saginaw in primary reading, arithmetic, and eighth-grade composition; Seattle and Lawrence in arithmetic. A very suggestive inside survey, conducted under expert outside advice, has been reported by Supt. R. G. Jones, of Rockford, Ill. Of inside surveys covering the entire field, that of Chicago, undertaken and completed within the year under review, is the most complete example appearing in available reports. The Chicago survey was made by 320 superintendents, supervisors, principals, and teachers employed in the schools of the city. The printed report of the survey, occupying 256 pages, appears in the form of reports of 25 committees, each charged with the duty of examining a single feature of the Chicago school system.[1]

The survey included the following features: School plant, administration, child study, physical education, humane and moral education, social efficiency, music, training of teachers, kindergartens,

[1] The report is given as pp. 31 to 287 of the annual report of the superintendent for the year ending June 30, 1914. For further details with regard to this survey, especially in the vocational phase, see p. 250 of this report.

reading, spelling, penmanship, arithmetic and mathematics, geography and nature study, history, German, art construction, industrial and prevocational education, commercial education in high schools, vocational work in technical high schools, vocational guidance, a bureau of vocational guidance, special schools, penny lunches, corrective institutions.

Every school had a representative on the survey committees. Each committee had for its chairman a member of the superintendent's staff. No specialist teaching the subject assigned to a committee could be a member of that committee. For instance, the chairman of the committee on training of teachers was the director of the department of child study. The chairman of the committee on reading in elementary schools was the supervisor of household art. Associated with her were seven elementary school principals, two men and five women, and seven teachers of household arts.

In the reports both defects and excellencies of the schools are set forth together with suggestions for improvement. Each report represents the opinions of the members of the committee whose signatures it bears, and is, of course, authoritative to just that extent. No reference is made to practice in other school systems, and it does not appear that any tests in the fundamentals as tried out elsewhere were used. This survey is certainly unique in that it would inevitably result in a fresh point of view upon each topic, care having been taken that no single surveyor should be an expert in the field that he surveyed.

Doubtless the survey gives a reliable picture of the Chicago school system. There can be no question that the 320 committee members engaged in the survey were personally and professionally benefited by their excursion into fields with which they had previously only a general acquaintance, and this alone is an asset to the system. The desire for efficiency which furnishes the motive for these inside surveys leads naturally to experimentation, and thus we find reported, together with present conditions, the means that are being tried out looking toward improvement. The annual report thus becomes an educational document suggestive to teachers within and without the system, as well as informing to the local public.

The East Saginaw experiment in fourth-grade reading may serve as an illustration. After detailing the methods used in testing reading in various grades and the status of the work as shown by the tests applied, the report continues:

> Another experiment tried in the reading classes of the fourth-grade Germania School during several months of the year was designed to furnish a better motive for oral reading than that found in the ordinary reading class. In the usual reading class, all members of the class have the same book, and all look on the book while one of their number reads aloud. The pupil who reads thus has no incentive to give an idea to his listeners, for they are reading themselves and getting the ideas for

themselves. The listeners have no incentive to give attention to the reader, for they know what he will say beforehand. The only motive in such a class is the negative one of criticism. The reader desires to pronounce his words correctly so as to avoid criticism, and to emphasize the passage read in such a way as to show that he understands its meaning. The listening pupils are trying to trip the reader, to discover in his reading a faulty pronunciation or a wrong emphasis. Such states of mind can not produce the best results on either side. The oral reading class should properly be an exercise in which the reader is giving to his hearers ideas new to them. Then the reader's motive is to speak his words clearly and to emphasize his sentences properly, to the end that his listeners may understand what he is reading. The listeners' motive is to understand what is being read, to determine whether it is of interest to them. An attempt was made in the fourth grade, Germania, to conduct the reading class in this way. Each pupil was given a different book from every other, and as each pupil's turn to read came he stood in front of the school and read to his classmates. If they did not understand what was being read, they asked the reader to repeat. Each pupil kept the same book and read from it day after day, stating each day at the beginning of his recitation the point of the selection at which he had arrived in the previous reading. The listening pupils were able to carry in mind the different pieces read, so that there was little loss on this account. The spirit of this reading class was excellent, and the success of the experiment was such as to warrant a continuation of this sort of reading in certain classes next year.

Such standard tests as have been developed have been widely used during the year. Seattle, in the extreme West, and Lawrence, in the extreme East, report at length upon the Courtis tests in arithmetic as given in their schools. In Lawrence the tests were given early in the year and again near its close. After a description of the tests and the record of results, the superintendent gives the following keen estimate of their value:

The chief value of the test, however, does not lie in the *average* of the results, nor is the efficiency of the school system as a whole measured chiefly by average scores of the grades. The average results in one school system do not differ greatly from those of other school systems. Different systems do, however, show on the face of the average scores certain weaknesses in general methods of teaching, or mistaken emphasis, poor grading, and so on. But the most significant thing is not the *average* ability discovered by means of the test, but the wide variability of arithmetical power revealed. Averages are of little account, since there are found more children who differ from the average than there are children of average ability. From the standpoint of efficient teaching, the significance of the results is not so much that the average of a sixth-grade class get a certain number of attempted examples right, but that in this sixth grade are found children of every level of ability, from those who can do none of the examples to those that can do them all. This was really the one great value of the test: That it demonstrated to teachers, in a tremendously effective manner, that the factor of individual differences is the basic factor in all school work, that the methods that do not recognize it are wasteful in the extreme, and that the only way of increasing our efficiency is to base our school work on the measured need of the individual and by so modifying our present system of class teaching as to provide for supplementary individual instruction.

It has, too, been an eye opener to teachers in that it has proven that drill in abstract work beyond a certain point is not only futile, but may actually reduce accuracy in problem work. Most critics of the schools, particularly the business man in whose memory of his school days the "drills" in arithmetic hold such a prominent place, have attributed the weakness of children in arithmetic to neglect "to learn their tables"

in the lower grades. The tests showed plainly that much drill in the tables and combinations, while it may give a class higher speed, affects its accuracy but slightly, and is pretty sure to be fatal to a proper growth of reasoning.

The outside survey discloses only present conditions. Under certain circumstances this service is valuable to the community in which the survey takes place, but it has a wider value, as has already been suggested, in contributing to common knowledge of methods of procedure, in helping to perfect measuring units or standards already worked out, and in adding perhaps to the list of units of measurement available. Workers in any school system now find at hand well-attested means of determining the efficiency of their work in at least a few fields, and the reports of the current year furnish evidence that they are availing themselves of these means.

A decade ago the self-complacency of the average schoolman stirred the unsympathetic among lay spokesmen to make sweeping statements condemnatory of public-school procedure in general. Then it became the fashion upon many an educational platform for the schoolman, especially when far from home, to outdo the layman in criticism of public-school work. Both layman and schoolman, however, dealt in generalities, and one was as little helpful as the other. A more self-respecting attitude now characterizes the utterances of the average schoolman. He feels obliged neither to declare his work perfect nor to condemn it in toto. He has means of comparison at his disposal by which he is able to show definitely in what respects his schools are up to accepted standards in efficiency and in what respects they are lacking. In other words, the progress made in his field through research and survey have enabled him to assume a scientific attitude toward his work.

REORGANIZATION OF GRADES.

In reports from nearly 40 cities of the group under consideration mention is made either of actual or proposed reorganization of the upper grammar grades to provide for differentiation of work for pupils in accordance with tastes and aptitudes and probable career and to facilitate departmental teaching. The six-year course of study for the elementary grades, followed by a six-year period divided between the intermediate school and the high school, is finding favor in the cities covered by this chapter. This division is sometimes 3—3 and sometimes 2—4, but the feature that stands out in most cases reported is the grouping of upper-grade pupils in central buildings for greater convenience in construction. In some cities, as Rochester, N. Y., Ogden, Utah, and Salt Lake City, Utah, the grades thus brought together are called the junior high school; in some, as Oakland, Cal., they are called the intermediate school; in some the term used is departmental grammar school; and there

are others where the grades in which departmental teaching occurs are not given any separate designation.[1]

Many superintendents who would not approve that extreme form of departmental teaching in the grammar grades in which the pupil has a different teacher for each subject find advantages in a conservative plan by which two or three teachers divide the work of as many classes in accordance with their tastes and abilities. The arguments against departmental teaching in the elementary school that were frequently heard a few years ago applied with considerable force to the extreme form of the plan. It was held that it tended to make teachers narrow, to overburden the pupil, to impair discipline, to overemphasize the function of knowledge in education, and to destroy the unity of school life for the pupil.

The extreme form of the departmental plan in general use in colleges and large high schools, however, has not found place to any large extent, if at all, in elementary school procedure. As a rule, under the compromise plan now generally followed, every class in a grammar-grade departmental organization has its teacher to whom each member of the class is directly responsible in matters of attendance, conduct, study, and recitation. The class may report to another teacher in another room for one or more exercises, but the regular or home-room teacher feels a definite responsibility for the class wherever it may be, and there is a very close cooperation between the teachers of a departmental group. The great expansion of the grammar-grade course of study through the enrichment that has been brought about in recent years has made the burden of subject matter weigh so heavily upon the teachers of these grades that they have been unable to do creditable work in all the subjects. Time and strength were not equal to the task of adequate preparation for the daily work. It was therefore inevitable that some favorite subjects would be well taught while others, for which a given teacher had less aptitude, would be handled in mediocre fashion.

The welfare of the pupil, too, calls for some readjustment of plans in view of the demands of modern life and the presence in the course of study of vastly more subject matter than any pupil can master. Consequently, the problem of differentiating courses in the upper grammar grades has become a vital and pressing one.

Among the cities of 25,000 or more inhabitants whose reports are available the following emphasize either departmental teaching or differentiated courses in upper grammar grades, or some form of the six-and-six plan, or all three in combination. Doubtless in some cities this modification has become so well established that it is no longer a matter calling for especial comment in reports; consequently

[1] For a detailed consideration of the junior high-school movement, see p. 135.

the appended list is by no means complete.[1] Furthermore, the list is based on an incomplete collection of reports for the year 1914.

Altoona, Pa.	Fall River, Mass.	Ogden, Utah.
Augusta, Ga.	Grand Rapids, Mich.	Orange, N. J.
Aurora, Ill.	Harrisburg, Pa.	Passaic, N. J.
Baltimore, Md.	Holyoke, Mass.	Rochester, N. Y.
Berkeley, Cal.	Houston, Tex.	Rockford, Ill.
Clinton, Iowa.	Kalamazoo, Mich.	Sacramento, Cal.
Dayton, Ohio.	Los Angeles, Cal.	Salt Lake City, Utah.
Detroit, Mich.	Newport, R. I.	Somerville, Mass.
East Orange, N. J.	New Britain, Conn.	Springfield, Mass.
El Paso, Tex.	Newton, Mass.	Topeka, Kans.
Everett, Mass.	New York, N. Y.	Trenton, N. J.
Evansville, Ind.	Oakland, Cal.	Worcester, Mass.

The discussions of departmental organization and differentiated courses found in the reports may be summarized somewhat as follows:

Not only educational principles but also certain obvious facts suggest that in the upper grades there should be differentiation of instruction to meet the varying needs of different groups of children. The traditional uniform academic course, with perhaps some little time given to manual training or domestic science, which still prevails in many cities is an arrangement good enough for pupils who are to have a long period of schooling; but much more profitable courses can be offered for pupils whom economic impulse will force into productive work at a comparatively early age. The latter class of pupils are now leaving school at various points from the fourth or fifth grade on, and often just as soon as they reach the legal limit of compulsory schooling. They quit school because of the attraction of wages, it is true, but chiefly because they have natural inclinations that lead away from the bookish interests of pupils destined ultimately to enter the professions; and such unliterary pupils would remain in school longer and receive more adequate training for good citizenship and efficient social service if the school offered, alongside the academic work, parallel courses of industrial, commercial, and domestic instruction. Into the latter lines of activity many pupils will eventually go, and they will prove much more reliable and contented employees if they have received instruction enlightening them in the importance and dignity of callings other than the so-called professions, and if they have been given an introductory training preparing them for the rapid acquisition of skill when they enter particular lines of business or definite trades.

The foregoing considerations point to the desirability of differentiation of school work at the beginning of the seventh grade. Boys and girls certain to go into the high school (and in a number of cases even to college) would continue to pursue through the seventh and eighth grades the present academic studies with the added privilege, entirely optional, however, of beginning a foreign language at the age of 12 to 14 years, when the drill incident to language acquisition is most acceptably undertaken. Pupils, on the other hand, destined to begin work toward self-support at an early age, either in business or in the industrial field, would find in the proposed seventh and eighth grade industrial courses just the sort of instruction and training most interesting to them and most profitable for the future life work to which they are to devote themselves. Moreover, the industrial instruction and practice desired can be developed along either or both of two lines: (1) The prevocational course to awaken interest in industrial pursuits and disclose the natural bent of the pupil; (2) specific trade training courses for those in whose cases decision has been made for this or that leading trade of the community. Finally, the proposed domestic

[1] For other lists, see pp. 148–150.

course for seventh and eighth grade classes will afford to many girls the only opportunity they will ever have for systematic instruction toward becoming in the future the efficient home makers that every community so sorely needs.

Differentiation of instruction in the upper grades naturally suggests departmental teaching, because no single teacher can be expected to teach the whole range of subjects included in the group of parallel differentiated courses. Departmental teaching is the plan common in high schools, where several teachers cooperate in the instruction of a group of classes by having the classes pass from teacher to teacher, receiving from each teacher instruction in only a single subject or in but two or three related subjects. This plan of teaching is to be recommended for grammar-grade classes, at any rate for the seventh and eighth grades, whether or not differentiated courses are offered. It is true that departmental teaching in the elementary school has dangers (for example, the overworking of pupils), that must be guarded against; but any competent principal with intelligent assistants, frequently conferring together, can avoid the possible disadvantages of departmental instruction and secure all the real advantages of the plan.

Of these advantages the following may be here enumerated: Better teaching, better equipment, enriched curriculum, promotion by subject, improved physical conditions for pupils, interest and stimulus of several teachers instead of one only, college graduates in grammar grade positions, transition to high-school attitude and methods.

No argument is needed to establish the fact that a teacher can become more expert in her teaching when she has to prepare upon only one subject or a few related subjects, and these subjects also in the line of her special interests, than when she must prepare upon the whole round of subjects now taught in the seventh and eighth grades of any progressive school system. Similarly, it is a great advantage to the pupil to be taken on from grade to grade in a given subject by the same teacher, an expert in the particular subject. Again, no argument is needed to show that a given outlay to purchase equipment for, say, geography instruction, will go much further when applied in the fitting up of a single room, the geography teacher's room, than when divided up among several rooms to give each of several teachers a share of the equipment for her geography lessons. Better teaching and better equipment inevitably bring about an enriched curriculum; for each of the teachers, in learning more and more about her chosen subject and in accumulating more and more equipment, will step by step develop the more important phases of her work and give less attention to or even discard entirely the less important phases; and, moreover, every study in the course, being in the hands of a sort of specialist, will receive its due share of time and attention, and will be taught so as to stir interest and produce truly educative effects. On the other hand, when a pupil has difficulty with any subject, the departmental plan, in affording a medium for promotion by subject, makes it an easy matter to advance this pupil in everything he has been successful with, while at the same time holding him back for review upon the subject only in which he has failed. Pupils also enjoy improved physical conditions under the departmental plan in getting the relief, activity, and variety afforded by moving from room to room as the periods of the day roll by. Many a pupil who finds school irksome and monotonous, or even repellent, under the one-teacher plan, especially with a teacher not of the highest efficiency, will develop a new interest and pleasure in his work under the stimulus of several teachers cooperating in departmental organization.

It is just the departmental organization, moreover, that will bring into the grammar grades scholarly and enthusiastic college graduates, for college graduates entering the school service have quite as lively an interest in seventh and eighth grade children as in high-school pupils; but the task of teaching the whole work of a grade, including subjects quite outside the teacher's special interests, is not attractive to one who has gone to college for the express purpose of getting superior knowledge and training in the two or three selected subjects that the candidate wants to teach.

Finally, and as a consequence of all the foregoing, departmental instruction in grammar grades is an admirable device for mediating the transition from the elementary school to the high school, because under this plan pupils are introduced gradually to high-school methods and assume quite easily the high-school attitude; and although this consideration may be said to apply only to the pupils who go on to the high schools, it is nevertheless an important factor both in determining how many will thus prolong their schooling beyond the eighth grade and also in unifying the whole school system of a city.'

In Ogden the last six years of the course are organized with a longer school day than is customary elsewhere and with the longer day divided into half-day sessions—a half day of academic work and a half day of industrial, social, and physical work, the academic studies being put in each half day and the industrial studies in each half day. Any pupil who can show that he has better industrial, commercial, or other work outside of school than the school program furnishes may be excused from any part of the industrial half day to take his industrial work outside of the school. This plan applies to girls as well as boys. A mother with a large family of children may need her daughter's assistance for an hour or two in the morning or in the afternoon. The girl may be excused for any part of the day for a time not exceeding three and one-half hours without losing any of her academic studies. Before granting excuse each case is carefully investigated to make sure that the home has the proper attitude and that the industrial work which it affords is equal to that which the school offers. Those who can not prove their case remain in the junior high school during the entire session, which begins at 8.30 in the morning and ends at 4.30 in the afternoon. The plan enables the school officers to bring back to the schoolroom many boys and girls who have left school to enter wage-earning occupations, and these pupils may take their academic studies and go on to graduation as rapidly as those who are in school all day. The industrial work they are doing outside is accepted as equal in value to that which others do in school.

THE INTERMEDIATE SCHOOL AND INDUSTRIAL EDUCATION.

Inasmuch as several reports referred to in the foregoing lay especial emphasis upon another feature of school policy that has become increasingly prominent of late, it seems proper to make mention of them as typical instances of the organization of industrial work in connection with departmental teaching and the intermediate school. Rochester, N. Y., uses the term "junior high school" to designate a school which comprises the seventh, eighth, and ninth grades. As the school population increases, it is the newly adopted policy in that city to build junior high schools in various sections of the city, instead of enlarging existing grammar schools, leaving these schools for the younger pupils of the first six grades. Prior to the adoption of this plan the number of pupils in any one of the grammar schools was so

small as to make practically impossible any differentiation of courses in the upper grades. By the new grouping of upper grade pupils the advantage of departmental instruction and some choice of courses are open to all pupils of grades 7, 8, and 9 throughout the city. Beyond the junior high schools are the senior high schools, two in number, in which the work of the tenth, eleventh, and twelfth years is carried on. In Ogden, Utah, the schools are organized on the 6—2—4 plan, the seventh and eighth grades constituting the junior high school. In Oakland, Cal., the seventh and eighth grades are organized on the departmental plan, some in a separate school known as the intermediate school and others in existing grammar schools in which other grades are also housed. They are known as departmental grammar schools. In these schools 15 hours a week are prescribed, viz, English, 5 hours; arithmetic, 3 hours; music, 2 hours; history and geography, 5 hours. From the following electives 10 or 15 hours a week may be chosen: Drawing, 2 to 5 hours; manual training or domestic science and art, 2 to 10 hours; literature or foreign language, 5 hours. In the intermediate school, 5 hours of science and 5 hours of typing (eighth grade only) will be offered next term. One of the grammar schools is vocational. In this school electives are limited to 5 hours of drawing and 10 to 20 hours of shopwork per week. Credit is given in the high school for the satisfactory completion of work in foreign language in the departmental grammar schools. Owing to the very elementary nature of the instruction thus far given in industrial subjects, high-school credit is not allowed. The plan, however, contemplates advanced standing in these subjects also. A majority of the instructors are university graduates and experienced elementary teachers. Each has been chosen because of special preparation or proficiency. The cost of instruction has been increased, partly because the salary schedule has been increased and partly because more subjects are taught or there is a greater time allotment for electives.

Illustrative program for five classes—Hours per week. Oakland, Cal.

Grades.	First hour.	Second hour.	Third hour.	Fourth hour.	Fifth hour.
7A	English, 5.....	Literature, 5; or foreign language, 5.	Arithmetic, 3; and music, 2.	History and geography, 5.	Drawing, 2; cooking, 3; manual training, 3.
7B	Literature, 5; or foreign language, 5.	English, 5.....	History and geography, 5.	Drawing, 2; manual training, 3; cooking, 3.	Arithmetic, 3; and music, 2.
7B	History and geography, 5.	Arithmetic, 3; and music, 2.	Drawing, 2; manual training, 3; cooking, 3.	English, 5.....	Literature, 5; or foreign language, 5.
8A	Arithmetic, 3; and music, 2.	Drawing, 2; manual training, 3; cooking, 3.	English, 5.....	Literature, 5; or foreign language, 5.	Geography and history, 5.
8B	Drawing, 2; manual training, 3; sewing, 3.	History and geography, 5.	Foreign language, 5; or literature, 5.	Arithmetic, 3; and music, 2.	English, 5.

Supt. A. C. Barker says: These schools have not been organized long enough to reach a final conclusion as to their efficiency. The elective system offers a greater opportunity to pupils. It may be questioned whether a pupil should study a foreign language, but if he is ever to study it, he should preferably make a beginning before the high-school age.

The transition state in which many school systems are at present in the matter of organization of grades is well illustrated by Kalamazoo, Mich., where for several years the school authorities have been working toward the senior and junior high-school plan. Departmental schools approaching the junior high-school arrangement had been in operation for 8 or 10 years. The promotion requirements were the same as in the high school, viz, by subject. Hence, a pupil might begin high-school studies before he had finished all of his eighth-grade work. Until 1914, however, there had been but little departure from traditional lines of work in the grammar grades. This year some optional work has been offered with this aim: A chance for pupils to take either Latin or German and hence start on a course of collegiate preparation; a chance for another group to begin work in bookkeeping and typewriting and hence start toward a commercial course; a chance for still another group to begin optional courses in manual training that had hitherto been offered only in the high school. Beginning in September, 1914, the Central High School will enroll the tenth, eleventh, and twelfth grades, and the departmental schools the seventh, eighth, and ninth, while the first six grades will form a separate unit.

Throughout New England it is a common practice to bring together the upper grammar grades in centrally located buildings for convenience and economy in carrying on the departmental system of instruction. As a rule the primary schools are small neighborhood schools, while the grammar schools receiving pupils each from several primary schools are large. The number of grades housed in these centrally located buildings varies according to local conditions. The departmental system of instruction is usually practiced in them whether differentiated courses are offered or not. These organizations approach the intermediate or junior high-school organization, though without any fixed rule as to number of grades. They offer an easy transition to the 6—3—3 plan or the 6—2—4 plan with differentiated courses after the sixth grade, departmental teaching, and promotion by subject. Along with this unsettled condition of intermediate grade organization in New England a change is in progress as to the number of grades below the high school. This is true also of Pennsylvania. Harrisburg is preparing to follow the examples of the other cities in the State. Within the past year Steelton, Lebanon, and Williamsport have changed from nine grades to eight, and only three or four cities still continue under the old nine-grade plan. Salem, Pittsfield, Fall

River, and Taunton, Mass., are changing from nine grades to eight. Fully one-half of the cities in Massachusetts had made the change prior to the present year. Holyoke, Mass., is considering the change, including the adoption of the 6—3—3 plan, with manual training in grades 7, 8, and 9 on a practical arts basis. Springfield, Mass., has substituted algebra and commercial arithmetic for the review arithmetic formerly required of all pupils in the ninth grade, the pupils choosing the one or the other study in accordance with their high-school aims and receiving high-school credit for the work. Especially able pupils are allowed to begin German in the eighth grade, receiving high-school credit in this subject also. Thus the ninth grade has in part been absorbed into the high school and seems likely at no distant day to disappear. New England is averse to radical changes, but nevertheless the section is plainly moving toward the general adoption of the new grouping of grades known as the 6—3—3 plan. Somerville, Mass., has recently organized one of its largest elementary schools with differentiated courses above the sixth grade, and Boston has begun the organization of junior high schools on an extensive scale.

It may be questioned, however, whether the 6—3—3 plan, though undoubtedly growing in popularity, will gain possession of the entire field. For several years the Gary plan has been attracting attention. Its limited adoption in New York City has intensified interest, and school men everywhere are giving it serious study. As carried out in its home city, the most marked contrast to the 6—3—3 plan which the Gary plan presents is that of keeping children of all ages together. In the 6—3—3 plan we have three distinct groups; the primary pupils are handled as one unit, the intermediate or junior high-school pupils as another unit in a separate central building, while the senior high school represents another distinct organization. An advantage is claimed for this segregation on psychological grounds. It is held that there is an advantage in separating young children, especially in their play, from adolescents. The other arguments for segregation deal with economy and efficiency, one prominent argument being based on the need of bringing together a large number of children of like attainments to facilitate departmental instruction and differentiated courses in intermediate grades. In the Gary plan, on the contrary, it is thought important educationally that the younger children see the older children at work in the shops and laboratories, and that the older children help the younger children with their tasks. Accordingly, all the grades from the kindergarten to the end of the high school are under one roof, and definitely arranged observation periods are planned in which the younger pupils see the older pupils engaged in all the variety of industrial work of the course. Experience is said to justify the belief that with the opportunity to see interesting activities in progress in which they are later to participate the younger

children gain an interest in school of great holding power, and that the beneficial effect of this is most noticeable in grades where attendance usually decreases so radically.[1]

In New York the Gary plan is being applied in two grades only—the seventh and eighth—in boys' classes in six large elementary schools. The advantages sought appear to be economy in the use of available space and a practicable method of conducting prevocational training for the industries. By using certain classrooms for two different sets of pupils other classrooms may be taken for shops, and thus even in congested sections of the metropolis every boy of these two grades may have a try-out experience in some one line of industry. In Gary a boy is not limited to experience in a single trade; he becomes familiar with a wide range of materials and processes. Kansas City is conducting one school on the Gary plan. Supt. Charles S. Clark, of Somerville, Mass., after visiting New York City, Gary, and several smaller places in which the Gary plan is being tried, has recommended that the alternating plan be employed in Somerville to relieve the overcrowding that exists in several parts of the city.

THE VOCATIONAL TREND IN EDUCATION.[2]

The three most prominent topics in city school reports of the present year relate to definiteness in supervision, changes in grade organization, and vocational training. Nearly every report available either mentions vocational training as already established or in the organization stage. The ordinary manual training courses seem no longer to satisfy conditions. They are giving place to courses called industrial, vocational, or, in the case of the earlier courses, prevocational. It might seem that the movement toward fitting boys and girls in school for practical efficiency in their life work was fast superseding harmonious development through liberal education, if we did not remember that the older so-called liberal form of education is so strongly intrenched as to call for no advocacy at the present time. The present concern seems to be for the large number of boys and girls who under the old régime found little of value in the curriculum because they could not or did not remain in school long enough to profit by it. It is not proposed to make artisans of those who by nature and circumstance tend to go in another direction. The literary curriculum is vocational for them, and it is still open to them. The intention of differentiated courses after the sixth grade seems to be to organize education on a vocational basis not for the few, as formerly, but for all. The advocates of early vocational education have no fear that their propaganda will endanger liberal education. On the contrary, they hold that the reorganization of education on a

[1] For a description of the Gary plan, see Bulletin of the Bureau of Education, 1914, No. 18.

[2] See also ch. 11, p. 239, of this report.

vocational basis will give motive for extended education, and thus provide time and opportunity for liberal culture. They advocate the education of the individual along the lines of his greatest endowment and as broadly as possible. The antiquated liberal plan assumed that those who found books too much for them would drift into the ranks of the manual workers and get on as best they could there. In abandoning this view it is not necessary to go to the opposite extreme, namely, that pupils should be tested and all who prove to be skillful with their hands be trained for the trades and those who show no aptitude for handwork be left to drift into the professions. The one test is no more decisive than the other. Of the two, however, the second is less fraught with danger, for in the shop as well as in the classroom there is opportunity to discover pupils who are fitted to deal with theories and general applications of ideas.

OTHER TOPICS EMPHASIZED IN THE ANNUAL REPORTS.

Agriculture and gardening.—It is interesting to note that instruction in agriculture is not limited to the high schools of rural communities. Cedar Rapids, Iowa, has a school farm on which experimental work is carried on as a part of the high-school work, with the cooperation of the State agricultural college at Ames. Indianapolis has a farm of 76 acres, with orchard, tillable fields, and forest which is utilized by classes of the Technical High School. Cleveland, Ohio, is another large city in which success has been achieved in the teaching of agriculture. Kingston, N. Y., high school has an 8-acre field, part of which will be used for instruction in intensive agriculture; in San Jose, Cal., an orchard and farm have been rented, where students can supplement their laboratory work with practical work in the field. Duluth reports an agricultural course in the high school which is valuable and popular. Decatur, Youngstown, and Oklahoma City are considering the purchase of school farms. St. Louis has placed all its school gardens under the care of a supervisor. In Elmira, N. Y., achievement clubs (for city and county) are carried on with the cooperation of Cornell University and the United States Department of Agriculture. They encourage achievement in agriculture and domestic work.

Architecture.—The 1-story school building already well known in California and the South is finding favor in colder climates. The Madison, Wis., school report refers with approval to the Elwanger and Barry School, of Rochester, N. Y., and reproduces the floor plans of the school, together with the architect's description of the building. Two more 1-story schools are now under construction in Rochester on the same plan. Some of the advantages claimed for a school building of this type are: The reduced cost of construction; the elasticity of plan that provides rooms varying in size for the work in

special lines without disturbing the school unit on which the building is planned; the method of overhead lighting; the independent exits for each schoolroom; the independence and freedom of different departments in the way of management; and the possibility of constructing different portions at different times, and of making additions at any time, without undue expense and without interfering with the unity of the structure. During the brief time the 1-story school has been in use in Rochester it has been found no more expensive to maintain nor more difficult to administer than other buildings. Nor has any more discomfort been experienced on account of summer heat. It has been as easy to maintain an even temperature in the 1-story school as in other buildings. The type of roof used is the saw tooth. The light comes in from the north and enters the rooms in such a manner that there are no shadows. The superintendent reports that experience in Rochester is so favorable that they will go on building 1-story schools wherever practicable.

Attendance laws.—Cities in Ohio and Massachusetts have had new problems thrust upon them under the operation of new attendance laws which went into effect in September, 1913. In Ohio, boys must attend school until they have finished the sixth grade and are 15 years of age; otherwise, until they are 16. Girls must attend until they are 16 years of age, and have finished the seventh grade; otherwise, until they are 18. At present an effort is being made to change this law so as to enable any pupil who is 14 years of age or over and has completed the eighth grade to receive an age and schooling certificate. The effect of such a provision is manifest. The parents would become the truant officers. Those parents of laggards who care little for the progress of their children, and seem to be chiefly interested in the time when they may go to work, would probably take an interest in having their children do their very best, if the law were thus changed. Under the new Massachusetts law the individual who wishes to work after he is 14 years of age must be able to show reasonable regular attendance during the year following his thirteenth birthday. The following are the principal features of the laws as they apply to persons between 14 and 16 years of age:

1. Must read well enough to complete the fourth grade in the schools.
2. May work but 48 hours per week.
3. Must be certified as to health by a physician.
4. May not be employed in any of a long list of dangerous employments enumerated.
5. Must be employed at regular work for wages at least six hours per day or must be in school, or must have written permission from the superintendent to be employed at home.

A defect of the former law has been corrected by requiring the employer to return to the superintendent of schools the working certificate of any minor as soon as his employment ceases. Thus the

attendance officer is enabled to see that the minor is either at work or in school.

The difficulties experienced under the new law in several mill cities of Massachusetts have been similar to those of Lawrence—the mills run 54 hours per week, while children may work but 48 hours per week. The following is quoted from the Lawrence report:

> The law compelling children to remain in school until their sixteenth birthday, unless they be regularly employed under a proper certificate, would have affected but slightly the conditions which prevailed for a good many years. But the passage, in conjunction with it, of a law which limited the hours of labor for minors under 16 to 8 in any one day, complicated the situation considerably. Children, to be sure, can still leave school to go to work at 14. But if employers do not wish to hire them under the 8-hour day law, then they are virtually compelled to remain in school until they are 16. That is what actually happened this year. There was a temporary dullness in the textile industry at the time these laws became effective. There was, too, considerable practical difficulty in fitting an 8-hour day for these minors to the regular working schedule of the mills. Upon the part of a few of the largest employers of minor labor there was no effort made to adjust their mills to the demands of the 8-hour day law for these children. These mills not only ceased to employ minors under 16, but discharged all under that age already on their pay rolls. In this manner, about 600 boys and girls were forced out of employment around September 1. More than 100 of them reentered school of their own accord. Many others received employment as soon as they reached their sixteenth birthday. A considerable number of them found employment, even before they became 16, in the two or three mills which continued to employ children under 16, in spite of the 8-hour day limitation. About 50 were found to have removed from the city. Nearly all the rest are at home, in not a few instances taking the place of the mother who, in order to keep the family income sufficient for actual needs, has gone into the mill in the place of the son or daughter forced out of employment as a result of the 8-hour day law. The law authorizes the superintendent of schools to issue permits to children under 16 who are "profitably employed at home." A careful investigation of all these remaining cases is already under way, and home permits will be issued wherever the reported facts seem to justify it.

Consulting psychologist.—Two cities—Seattle and St. Louis—have added to their equipment for effective work with children who deviate from the normal by organizing centers for laboratory and observational purposes. In St. Louis the center is called the psycho-educational clinic, and a trained clinical psychologist has been placed in charge.

Course of study.—Revision of the course of study, as in former years, is in progress in many cities. Salem, Mass., issues its course in loose-leaf form to facilitate minor changes. In Worcester a minimum and maximum course is being worked out, the minimum course containing all the essentials, but omitting many details of the maximum course. This course is designed for schools attended largely by children who speak at home a foreign language. In Newark the changes in the course look toward the correlation of evening, day, and summer schools. In East Orange, N. J., the entire course for grades and

high school has been revised and final examinations as a basis of promotion abandoned. A general revision of the course of study, which was begun last year in St. Louis with a study of the principles underlying the curriculum, is continued this year in the work of subcommittees of supervisors, principals, and teachers on the several subjects of the course. Several southern cities are revising the elementary course of study for their colored schools, with a view to improving the industrial features of the courses. In Savannah, Ga., 90 minutes a day in the seventh and eighth grades are to be given to industrial work, including sewing, cooking, house cleaning, serving meals, sanitation, and house service for girls and varied manual training for boys. The regular academic work remains about as before. The general tendency evident in revisions of the course of study in progress is summed up by Supt. Hunter, of Lincoln, Nebr., as "the redirection and adaptation of our course of study to our varied community life."

Hygiene.—Decided progress is shown in reports in the matter of health supervision and the general mention of the school nurse and the dental clinic. The fresh-air room and the open-air school, too, are frequently mentioned. The school physician has become far more than a mere inspector, and the nurse and the dentist are equally important factors in a well-organized scheme of health supervision in city schools. The dentist is the last to be employed wholly at public expense. Usually the dental clinic is managed on a cooperative basis, the dental service being rendered by volunteers. Only about a dozen cities report the installation of health supervision within the year. In most other instances it is spoken of, if at all, as having been established for a considerable time.

A new system of ventilation is finding favor in Rockford, Ill. The system utilizes the usual mechanical devices, such as steam heating, fans, ducts, and temperature control, but differs in the manner of applying the heating agency in the room. It reverses the usual practice by providing a warm stratum of air at the ceiling to take up the heat loss of a room and supplying air at a lower temperature for ventilation below the stratum of warm air. This heavier air directed over the area of the room descends to the floor and exits. The air being admitted at about the right temperature for use retains the greater part of the natural out-door humidity. Lateral air movement, that is, from one person to another, is avoided, the supply to each person coming from above. If in Rockford a way has been found to preserve the natural humidity of air for schoolroom use, that has been found which many have been seeking in vain.

Improvement of teachers.—Fort Worth and El Paso, Tex.; Oakland, Cal.; Youngstown, Ohio; Lincoln, Nebr.; Oklahoma City, Okla.; Rockford and Danville, Ill.; Harrisburg, Pa.; and Stamford, Conn.,

mention new means employed to train teachers or to provide for the professional improvement of those in service as one of the important steps in advance made recently. Detroit encourages the study of problems under the direction of its newly organized department of educational research. Oakland, through a similar bureau and in cooperation with the University of California and Stanford University, is organizing research clubs for city teachers and principals. University seniors enrolled in the school of education are allowed to register for research work in the city schools. The merit basis for salary adjustment is fast superseding the uniform salary schedule and the schedule based on experience alone. A school system which has just begun to train teachers for its service, and which for a time must have the greater part of the instruction given by the untrained, has a peculiarly difficult problem to solve in making a just salary schedule, and one which at the same time stimulates professional improvement in the teaching force. Following is a description of a salary card devised by Supt. R. G. Jones and used in Rockford, Ill., to meet such a situation. It is the only formal rating system observed by the writer in the reports of the current year.

On each card are listed all the teachers of a school with the following data concerning each teacher: (1) Credits for experience; (2) credits for training; (3) credits for efficiency; (4) the salary estimated from these credits; (5) the present salary; (6) the increase of estimated salary over present salary.

CREDITS.

The possible number of credits for any teacher is 160. The credits are distributed in the following way: Experience, 62; training, 18; efficiency, 80; total, 160.

EXPERIENCE.

A teacher's experience credits are determined as follows:
One year's experience, 20 credits.
Two years' experience, 20 plus 16, or 36 credits.
Three years' experience, 20 plus 16 plus 12, or 48 credits.
Four years' experience, 20 plus 16 plus 12 plus 8, or 56 credits.
Five years' experience, 20 plus 16 plus 12 plus 8 plus 4, or 60 credits.
Six years' experience, 20 plus 16 plus 12 plus 8 plus 4 plus 2, or 62 credits.

TRAINING.

One credit is allowed for four weeks of college or normal training. Credit is also allowed for private training in instances where it aids in the special work of the teacher.

EFFICIENCY.

Grading of efficiency is based on the combined judgments of principals, supervisors, the superintendent, and members of the teachers' committee of the board of education. It takes into consideration instructional skill, initiative, cooperation, intellectual capacity, etc.

SALARY.

Each credit represents 50 cents in salary. Eighty dollars is the maximum salary. A teacher's salary is equal to half the number of her combined credits in experience, training, and efficiency.

REMARKS.

The distribution of credits between experience, training, and efficiency should be varied from time to time to suit the conditions in the system. For instance, the large proportion of credits given to experience in this particular system is due to the fact that training has not been emphasized among requirements for teachers, with the result that there is a surplus of experience, and small training. Consequently the salary must be based for a time at least more largely on experience, to avoid too radical a change of salaries.

It is interesting to score the teachers on these items and compare the estimated salaries with the actual salary.

It has disclosed the following facts:

1. Teachers' salaries have been based on the number of years they have taught in the system.

2. The efficiency and training have had no definit relation to salaries.

Below is given a representative card showing the ratings of one of the schools in the system:

FORM 1.—*Ratings for teachers' salaries.*

Teacher.	Experience.	Training.	Efficiency.	Estimated salary.	Present salary.	Difference.
Alice Smith	62	0	75	$68.50	$60	$8.50
Eva Lane	62	0	75	68.50	60	8.50
Edna Higgins	60	1½	68	63.50	55	8.50
Mary Linn	62	10½	68	70.00	60	10.00
Caroline Dodds	62	18	50	65.00	60	5.00
Esther St. Clair	29	10½	50	45.00	40	5.00

Below is given the same list of teachers showing the salaries as arbitrarily settled by the board and the efficiency mark computed from the given columns, experience, training, and salary. By comparing the efficiency column of Form 2 with the true efficiency grades of Form 1, the injustice of the former is obvious.

FORM 2.—*Ratings for teachers' salaries.*

Teacher.	Experience.	Training.	Efficiency.	Estimated salary.	Present salary.	Difference.
Alice Smith	62	0	68	$65.00	$60	$5.00
Eva Lane	62	0	68	65.00	60	5.00
Edna Higgins	60	1½	58½	60.00	55	5.00
Mary Linn	62	10½	52½	62.50	60	2.50
Caroline Dodds	62	18	50	65.00	60	5.00
Esther St. Clair	29	10½	50½	45.00	40	5.00

Length of school day.—The tendency toward lengthening the school day, noted in only a few instances last year, is apparently on the increase. This year seven cities mention the lengthened day in high school. These cities are Auburn and Syracuse, N. Y.; Duluth, Minn.; Clinton, Iowa; Norristown, Pa.; Ogden, Utah; and Spokane, Wash. In Holyoke and Springfield, Mass., the matter is under consideration. No public expression of disapproval of the longer day is reported except in Syracuse, where some temporary misunderstanding was soon put at rest.

The double-session plan in Ogden, with optional substitution of approved outside practical work for either the forenoon or afternoon session, has already been mentioned. Of 128 representative high schools throughout the country, 11 have a six-hour day according to a recent inquiry. The extended session in Auburn is in part for voluntary work and only in part compulsory. The Norristown, Pa., report makes the following statement:

THE EXTENDED SESSION OF THE HIGH SCHOOL.

The school opens at 8.45 and closes at 3.30. There is an intermission of 30 minutes at 12 o'clock. The periods are 1 hour in length. The last half of the period is devoted to recitation. The first half of the period is devoted to study, under the direction of the teacher who has charge of the recitation. During this portion of the period the teacher does not use the time for marking papers or to prepare herself to teach the lesson. She devotes the entire time to the quiet supervision and direction of the study by the pupils.

When the class has a laboratory period, a typewriting period, a manual-training period, a drawing period, or a domestic-art period, the entire hour is devoted to the particular type of work.

Pupils who carry the minimum requirements will have one full period for study each day, in addition to the half-hour preparation prior to each lesson. Twice a week they will have two hours, in addition to the half-hour preparation prior to each lesson. Pupils who are strong enough to carry an additional subject will have a full hour for study twice a week only.

Pupils are allowed to carry an extra subject only by the request of the parents and the consent of the principal and superintendent.

Pupils who can not gain a good standing in their lessons by using all the available time for study in school are urged to supplement school periods for study by study at home until a satisfactory standing is attained.

The benefits which are expected to be derived from the above plan are the following:

1. An opportunity to teach the student how to study.

2. It places the work of the school where it ought to be, under the direction of the person particularly fitted, the teacher, to direct it. The work will be done in the place particularly fitted for study, the school plant.

3. One-half hour for study, followed by one-half hour for recitation, avoids fatigue and at the same time places the student under the teacher's influence 1 hour instead of 45 minutes.

4. The work will be done in daytime.

5. The pupil will gain time. At present much time is wasted in study because the pupil frequently studies under conditions that are not favorable. He frequently does not know how to approach his work and becomes discouraged and loses time.

6. It avoids the fatigue that comes from night study.

7. It reduces the amount of eyestrain due to night study.

8. It insures some preparation by every pupil. This will make the teaching more effective. When pupils are expected to prepare their lessons at home many fail to do so.

9. The evening belongs to the home, not to the school. It is the time for the family hour, for social culture, and for legitimate entertainment. It is the time for relaxation and the time when the mind should be diverted from the business of the day. It will mean greater companionship of parents and children during the high-school period.

10. This plan recognizes the value of a rhythmic life—a time for work, a time for relaxation and recreation, a time for sleep.

The all-year school.—Summer sessions of four to six weeks in elementary and even high schools have become so numerous as to make an enumeration of the cities in which they are conducted impracticable. In most instances these sessions are for review, so that pupils who have failed of promotion may regain their lost grade, but in many instances they are so conducted as to allow pupils to gain a grade. Newark, N. J., still furnishes the only example of the all-year elementary school, though Grand Rapids, Norristown, and Utica are considering its adoption, the latter in a single school where 99 per cent of the children are of foreign extraction. In Newark one of the two all-year schools is composed almost entirely of Italian pupils and the other of Jewish pupils. The Newark report asks and answers three questions: (1) Does continuance at school injure the health of the children? (2) Can the plan be administered successfully? (3) Is the expense of maintaining the school two extra months justified? The principals of both schools report that the health of the children has been exceptionally good. The difficulties that have been experienced in administering the plan have been easily met. The plan is held to be economical for the following reasons:

Plant.—Owing to the more rapid progress of pupils, a plant of a given size will accommodate a larger number of pupils in a given number of years.

Instruction.—Inasmuch as the elementary course is completed in 6 years instead of 8 years, there is a saving in the cost of instruction. This saving represents the difference in cost between maintaining the schools for 6 summers of 8 weeks each, as compared with 2 full years of 40 weeks each.

Maintenance.—Just as the initial cost of providing grounds and buildings will be lessened by making fewer schools necessary to accommodate the city's needs, all elements of cost involved in maintenance of the school plant will be correspondingly diminished. Stated in brief, the more efficient utilization of the school plant and school machinery in the way proposed will largely diminish the element of cost, while at the same time adding substantially to the output.

Other features that find frequent mention in the year's reports are: Cooperation with the social forces of the community; provision for exceptional children; less reliance on examinations as tests for promotion; vocational guidance; profitable use of study period; evening school; continuation school, day and evening; nurse as home visitor; organized play; social and recreative centers; school savings; semiannual promotions. The teaching of sex hygiene, a topic so much discussed recently in conventions, is mentioned in only 2 of the 200 reports available for study. Of all these topics here mentioned the one most generally treated in the reports is that relating to the wider use of the school plant.[1]

[1] See chapter 21 of this report, p. 455.

CHAPTER IV.

CURRENT PROGRESS IN SCHOOLS OF CITIES OF 25,000 POPULATION OR LESS.

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Contents.—Introduction—Administration—City superintendents: Length of time served; salaries—Teachers: Measuring efficiency—Professional investigation—Organization and course of study: Reorganization; reorganization in the seventh and eighth grades; credit for work outside of school; vocational subjects; agriculture; short-term courses—Interesting the community—Wider use of school plant—Vacation schools—Evening schools—Special schools and classes—Health of the child—Open-air schools—Janitors—Playgrounds—Classification and promotion.

INTRODUCTION.

Since this is the first attempt of the Bureau of Education to make a survey of educational progress exclusively for cities of 25,000 population and less, much space must necessarily be devoted to conditions as they exist at the present time in the schools of this group of cities without immediate regard to the year under consideration. By discovering what conditions are, a general idea will be had of recent progress and present tendencies, and a starting point will also be established, so that future articles relating to educational progress in the smaller cities may show more definitely just what advancement these cities have made.

That the smaller cities need to be considered in any survey of conditions in city schools is evident from the following: There are only 229 cities of more than 25,000 population, while there are 2,173 of between 2,500 and 25,000 population; of the 42,623,383 people who live in cities, 14,079,567, or one-third of the total urban population, live in the smaller cities. This group of cities shows as rapid increase in population as the other groups. From 1900 to 1910 the per cent of increase in cities of over 100,000 was 32.8; in cities from 25,000 to 100,000 it was 37.9, and in cities from 2,500 to 25,000 it was 36.1.

In school enrollment and school expenditure the smaller cities present rather significant conditions. The total enrollment in city schools for the year 1913 was 6,370,023; of this number, 1,878,713 were in cities of between 5,000 and 25,000 population; 1,361,843 in cities between 25,000 and 100,000, and 3,129,467 in cities above 100,000. All the cities of more than 25,000 reported enrollment statistics to this bureau, while 86 of those between 5,000 and 25,000 did not. If these 86 cities and all under 5,000 had reported, the approximate

enrollment in cities between 2,500 and 25,000 would be 2,500,000, or one-third of the total enrollment in all city schools. The total expense for instruction and maintenance in all cities was $199,264,299, of which $40,240,059 was for the cities between 5,000 and 25,000; $40,643,345 for those between 25,000 and 100,000, and $118,380,895 for those over 100,000. All but two of the larger cities reported regarding these expenditures; 200 of those between 5,000 and 25,000 did not report, and none of those from 2,500 to 5,000. If statistics were available from all these, the total expenses for the smaller cities would be at least $60,000,000, or from one-fourth to one-third of the total amount expended for instruction and maintenance of city schools. The amount expended in 1912–13 for new buildings, equipment, and other indebtedness was $48,641,380; of the total amount, $10,447,588 was expended in the group of cities between 25,000 and 100,000; $29,318,344 for those of more than 100,000, and approximately $12,000,000 for the smaller cities, or about one-fourth of the total expenditure for new buildings and equipment.

The number of teachers reported employed in city schools was 164,877; of this number, 51,802 were in cities between 5,000 and 25,000, and, approximately, at least 60,000 were employed in those between 2,500 and 25,000. The number of supervising officers in all cities over 5,000, not including building principals, was 3,649, of whom 1,950 were in cities between 5,000 and 25,000. If one supervisor is added for each of the cities between 2,500 and 5,000, the total number of supervisors will be 3,200. There is thus approximately one supervising officer, not including building principals, for each 1,200 pupils in the smaller cities and one for each 2,600 pupils in the larger cities.

It is evident, therefore, that any discussion of progress in urban education must consider the progress made in the smaller city schools. Certain movements in education may not be so widespread as is popularly supposed when all towns and cities above 2,500 population are taken into consideration. For instance, there is much said of vocational training in city schools, yet investigations show that in the smaller cities this movement has progressed but little. To measure the real progress of the smaller schools, one should note to what extent they are turning out a better product. Often too many lines of endeavor do not denote progress, especially in a school system whose budget is limited. No doubt some of the best schools in the country are those that are doing one or two things well, rather than those that are, on a small appropriation, attempting many things.

What is true educationally of one city of more than 25,000 population is likely to be true of most other cities of the same size. In the smaller cities, on the contrary, there is wide variation. To illustrate: In one State there are two towns of 4,000 population each, a street forming the dividing line. There are large manufacturing

plants in the one town, and many of the citizens are highly paid superintendents, bosses, and skilled workmen. The tax rate for school purposes is only 3 or 4 mills on the dollar. In this city the school superintendent receives a good salary, and the teachers are efficient and well paid. On the whole, the schools are above the average for cities of the same size. The population of the other town is made up largely of unskilled laborers who live in cheaply constructed houses. The school tax rate is 15 or 16 mills; yet with this high rate the schools are less efficient, since the higher rate produces less revenue than the lower one in the wealthier town.

Similar instances are not uncommon. Many of the smaller cities are adjacent to a large city; one may be a wealthy suburb that can maintain better schools than the large city itself, while other suburbs of the same city may be so poor that their schools are very inferior. A small city remote from the metropolitan district may be a manufacturing center with large mills, railroad shops, etc., able to maintain much better schools than cities that are mere trading points for an agricultural region or residential centers for retired business men or farmers whose wealth is often invested in other cities and in farms. In one small city of 12,000 population there are 25 millionaires, yet the assessed valuation of the city is only $10,000,000. The only property these men own in that city is their homes, their money being invested in mines in a neighboring State. If the statistics in this chapter showing conditions in the smaller cities are not as flattering as might be wished, it must be remembered that financial conditions are in many cases responsible for the lack of progress.

ADMINISTRATION.

Relatively few changes have been made within the last few years in the smaller cities in the size of school boards, length of term, and manner of election. The tendency has been, however, toward smaller boards, longer terms, and election at large. In 1911 Pennsylvania reduced the number of members of school boards in nearly every city and borough, the ward system of election giving way to election at large. Some of the cities of less than 25,000 population had as many as 21 members. All cities in that State between 5,000 and 30,000 now have boards composed of seven members, and all of 5,000 and less have boards of five members. The general verdict is that the change has rendered the school boards more efficient. Much that was formerly done by committees is now disposed of in open board meetings. In only one or two instances is it reported that election at large has secured a less satisfactory class of men.

Statistics collected by this bureau show that of 1,272 cities reporting, the board members are elected by popular vote in 1,087; in 44 they are appointed by the mayor; and in 141 by the city council. In 951 cities they are elected for the entire city. In several States

the boards are elected at large, but the members represent their respective wards. The ward system of election has been universally condemned and will no doubt soon pass away.

In cities of between 2,500 and 30,000 population the number of board members varies from 3 to 24, most boards being composed of from 5 to 7 members. Of 1,271 of these cities reporting, 179 have boards of 3 members; 4 of 4 members; 365 of 5; 236 of 6; 306 of 7; 27 of 8; 97 of 9; 20 of 10; 8 of 11; 19 of 12; 3 of 13; 2 of 14; 2 of 15; 1 of 16; 1 of 19; 1 of 24. Only 181 have more than 7 members.

The tendency is toward fewer committees, though some boards still have as many committees as there are board members, so that each member may have a chairmanship. In cities where there are three board members, there are usually no committees. Boards composed of five members usually have two or three committees.

Most cities elect for a term of three years. Of 1,224 cities of between 2,500 and 30,000 population reporting, 4 elect for a term of one year, 115 for two years, 714 for three years, 157 for four years, 50 for five years, 192 for six years, and 2 for seven years. There is a tendency to increase the term of school board members, Pennsylvania having increased the term from three to six years and New Mexico from two to four years.

In the smaller cities, especially those below 15,000 and 20,000, the business management of the schools is conducted by the board and the superintendent. In some of the cities of between 15,000 and 25,000 population a secretary devotes all his time to the schools and acts as business agent for the board. There is undoubtedly room for improvement in the management of the business affairs of the schools in the smaller cities; of 1,350 cities reporting to the bureau, only 250 are keeping accounts in accordance with the forms recommended by the Department of Superintendence of the National Education Association.

CITY SUPERINTENDENTS.[1]

The office of city superintendent is of comparatively recent origin.[2] Not until 1883 was there a superintendent of schools in Philadelphia, Pa. Now every town and city of over 2,500 population has a superintendent or supervising principal who devotes all or part of his time to problems of supervision and administration. In a few other cities the superintendent does not have the same authority over the high school that he does over the grades; in 125 of the cities reporting, superintendents have no control over the high school. Before school boards fully understood the function of a superintendent, he was required to teach all or part of the time. Conditions have so im-

[1] In this chapter the term "city superintendents" includes all heads of a city school system, whether legally empowered as superintendents or only as supervising principals.

[2] The exact date is in dispute; see Education Bulletin, 1913, No. 8, p. 50, note.

proved in the smaller cities that of 1,300 superintendents reporting, only 319 are required to do any teaching.

It has taken school boards some years to realize that the only logical person to nominate and select teachers is the superintendent. Of 1,300 cities reporting, the superintendent nominates teachers in 955; in 501 cities he sometimes selects them. In only 205 cities, however, are superintendents permitted to dismiss employees. In 955 cities books are adopted upon the recommendation of the superintendent; in 854 he recommends changes in salaries. It might be supposed that all superintendents attend board meetings, but 75 report that they attend only when invited.

As yet few State laws define specifically the powers and duties of city superintendents. In several States the superintendent has a seat on the board, but no vote. In only a few States does the law give him the power to recommend the appointment and dismissal of teachers. Whatever power a superintendent in any city has is usually delegated to him by the school board.

On the whole, the power of the superintendent in the smaller cities is increasing. In reply to a questionnaire to which 756 superintendents responded, 614 say that their boards are inclined to give them more power. The following rules recently adopted at Long Beach, Cal., indicate the trend of opinion as to the powers and duties of the superintendent:

1. The superintendent of schools shall be the chief executive officer of the board of education and shall have general coordinating authority and oversight over the work of all executive officers and employees of the school district.

2. He shall prepare and recommend to the board for adoption the courses of study for the elementary schools, and any changes that he may from time to time deem advisable. 3. He shall select and recommend suitable textbooks (other than State books) and supplementary books for the elementary schools. No book shall be selected by the board which is not recommended by the superintendent.

4. He shall recommend suitable principals, special supervisors, and teachers for the elementary schools. No principal, special supervisor, or teacher shall be elected by the board who is not recommended by the superintendent.

5. He shall have full responsibility for the promotion, assignment, and transfer of principals, special supervisors, and teachers. He shall submit to the board full information relating to these matters.

6. He shall be responsible for the general efficiency of the school system, for the development of the teaching force, and for the growth and welfare of the pupils.

7. He shall be responsible for all rules and regulations governing the admission transfer, classification, and promotion of pupils.

8. He shall prepare, distribute, and collect all blanks and reports required by law and such other blanks and reports as he shall deem necessary for the intelligent and systematic conduct of the schools.

9. Jointly with the principal of the high school he shall recommend to the board courses of study, textbooks, and teachers for the high school. No textbook shall be adopted, or teacher elected, that has not been jointly recommended by the superintendent and high-school principal.

10. He shall monthly and annually make reports to the board relative to conditions in the schools and recommendations for their increased efficiency.

11. At least once each term he shall report to the board upon the general condition of the teaching and supervisory forces, and especially with reference to those teachers or supervisors whose services are not proving satisfactory.

12. He shall be responsible for the methods of instruction and management used by the teachers and principals, and shall have authority to hold such meetings of teachers and principals as he deems necessary for their instruction and guidance.

13. He shall have power to suspend from school any pupil whose conduct or character is such as to injure the reputation of the school, or whose parents wilfully neglect or refuse to cooperate with the superintendent or teacher in carrying out the regulations of the school, or encourage their children to violate the regulations, and report his action to the board of education.

At present 578 of the 1,350 cities reporting require their superintendents to be college graduates; many others, in the absence of any formal rule of the board, always employ college graduates. The educational qualifications of the superintendent as defined by State law are usually that he shall hold a first-grade or life certificate and have a few years' experience as a teacher. Experience has shown, however, that a superintendent must have other qualifications. In the past the ability to administer schools was acquired by experience alone; to-day there is a demand for men who have had special training in the several phases of school administration.

Much of the business management must fall upon the superintendent, since it is impossible to separate business and educational administration completely. In most schools about half the money expended is for instruction. A business manager may know more than the superintendent about purchasing janitor supplies and repairing buildings economically, but neither he nor any school board member knows what instruction to buy, how much, and in what subjects, how many pupils to be assigned a teacher, how many supervisors to be employed, how many daily recitations a high-school teacher should conduct, and how many hours of work a high-school pupil should carry. It is therefore evident that a superintendent can not be totally oblivious to the financial phase of his work, or he will bring his board to bankruptcy; or, as only so much money is available for the schools in any city, he will not secure the best educational results from the funds expended.

One of the signs of progress in the smaller cities is that many of the superintendents are taking postgraduate courses in methods of teaching and in school administration. The summer school classes in school administration in many of the colleges are made up largely of these men, and some of the most interesting and instructive studies in administrative problems have been made by superintendents in the smaller cities. A few years ago the published reports of the schools of these cities contained nothing but lists of teachers and high-school graduates, with a few tables relating to expenditures; to-day some of these reports present school conditions as scientifically as those issued by many of the larger cities.

LENGTH OF SERVICE.

One of the reasons the schools in the smaller cities have not become more efficient is that superintendents remain in one position for such short periods. During the two years from 1911 to 1913, in cities between 4,000 and 25,000, there were 348 changes, an average of 174, or 13 per cent a year. If statistics were available for towns of between 2,500 and 4,000 population, the percentage would be much greater. A short term is responsible for frequent changes. By referring to Table 1, below, it will be seen that most superintendents are elected for a term of only one year. Few superintendents remain in one city more than ten years.

TABLE 1.—*Length of time served by superintendents in certain cities of 4,000 to 25,000 population, 1913–14.*

States.	Number of cities.	Time served.				Number of superintendents elected for—						
		Less than 5 years.	5 to 10 years.	10 to 15 years.	More than 15 years.	1 year.	2 years.	3 years.	4 years.	5 years.	6 years.	Indefinite term.
Alabama	19	11	5	1	3	10	6	1	.....	.....	.....	.....
Arizona	8	2	5	1	.....	6	2	.....	.....	.....	.....	.....
Arkansas	11	6	5	.....	.....	8	1	1	.....	.....	.....	.....
California	35	15	12	4	4	13	2	.....	23	.....	.....	.....
Colorado	13	5	2	3	3	8	3	2	.....	.....	.....	.....
Connecticut	40	23	1	3	4	27	2	2	.....	1	.....	2
Florida	10	2	1	1	.....	1	.....	.....	3	.....	.....	.....
Georgia	22	13	4	2	3	21	.....	3	.....	.....	.....	.....
Idaho	7	2	3	.....	1	2	1	3	.....	.....	.....	.....
Illinois	77	32	22	12	13	73	1	.....	.....	.....	.....	.....
Indiana	59	20	25	8	3	27	8	19	.....	1	.....	.....
Iowa	31	18	9	1	.....	27	.....	1	.....	.....	.....	1
Kansas	27	13	6	5	2	12	14	.....	.....	.....	.....	.....
Kentucky	20	10	7	2	.....	12	5	1	.....	.....	.....	.....
Louisiana	12	5	2	2	.....	5	.....	.....	3	.....	.....	.....
Maine	23	14	9	.....	.....	22	.....	1	.....	.....	.....	.....
Maryland	8	3	3	.....	.....	2	4	.....	.....	.....	.....	2
Massachusetts	98	41	19	15	13	61	.....	20	.....	1	1	12
Michigan	51	25	12	6	8	39	8	4	.....	.....	.....	.....
Minnesota	26	13	10	1	.....	20	.....	3	.....	.....	.....	.....
Mississippi	18	4	4	2	3	9	.....	4	.....	.....	.....	.....
Missouri	34	16	10	6	.....	30	3	.....	.....	.....	.....	.....
Montana	10	2	7	.....	1	2	1	7	.....	.....	.....	.....
Nebraska	12	5	4	1	2	4	2	6	.....	.....	.....	.....
Nevada	2	1	1	.....	.....	1	.....	.....	1	.....	.....	.....
New Hampshire	14	6	2	.....	2	10	.....	.....	.....	.....	.....	.....
New Jersey	55	20	13	3	4	26	1	8	.....	1	1	18
New Mexico	4	3	1	.....	.....	4	.....	.....	.....	.....	.....	.....
New York	73	31	21	9	9	55	1	5	3	1	.....	18
North Carolina	25	16	3	2	1	23	.....	.....	.....	.....	.....	.....
North Dakota	7	3	1	.....	3	6	.....	1	.....	.....	.....	.....
Ohio	80	31	23	12	10	9	16	33	6	7	.....	.....
Oklahoma	18	10	8	.....	.....	12	6	.....	.....	.....	.....	.....
Oregon	14	9	4	.....	.....	9	3	2	.....	.....	.....	.....
Pennsylvania	151	54	57	9	23	35	7	96	2	.....	.....	.....
Rhode Island	14	7	2	.....	1	10	.....	.....	1	.....	.....	1
South Carolina	15	6	1	1	3	11	.....	.....	.....	.....	.....	1
South Dakota	6	3	3	.....	.....	4	1	1	.....	.....	.....	.....
Tennessee	11	5	5	.....	1	5	3	4	.....	.....	.....	.....
Texas	42	15	18	6	2	24	15	.....	.....	1	.....	.....
Utah	3	2	1	.....	.....	.....	3	.....	.....	.....	.....	.....
Vermont	10	5	4	1	.....	10	.....	.....	.....	.....	.....	.....
Virginia	16	4	8	.....	1	3	.....	.....	11	.....	.....	.....
Washington	15	8	5	.....	1	7	5	2	.....	.....	.....	.....
West Virginia	12	6	2	2	2	7	4	.....	.....	.....	.....	.....
Wisconsin	36	20	8	5	3	28	.....	9	.....	.....	.....	.....
Wyoming	5	2	2	.....	.....	4	.....	.....	.....	.....	.....	.....
Total	1,299	567	389	126	129	744	128	238	53	13	2	55

The tendency, however, is undoubtedly toward a longer term. During the two years 1911–1913, in 83 cities the length of term of the superintendents was increased. The new school code of Pennsylvania provides that city superintendents shall be elected for a term of four years. In several of the States, notably New Jersey, New York, and Massachusetts, many of the superintendents are given indefinite terms.

SALARIES.

Another cause for the many changes is that salaries are low, especially in the group of cities under 10,000, the average for those between 4,000 and 10,000 being $1,889. The following presents the range of salaries paid in cities of this group:

Range in salaries of superintendents in cities of 4,000 to 10,000 population.

	Cities.		Cities.
$400–$900	3	$2,401–$2,700	51
901–1,200	23	2,701– 3,000	21
1,201–1,500	130	3,001– 3,300	6
1,501–1,800	260	3,301– 3,600	6
1,801–2,100	215	3,601– 4,500	2
2,101–2,400	120		

Average salary paid superintendents in cities of 4,000 to 10,000 population.

Divisions.	Cities.	Average salary.
North Atlantic	297	$1,854
North Central	309	1,958
South Atlantic	71	1,657
South Central	100	1,751
Western	81	2,273

In the group of cities between 10,000 and 25,000 population, the average salary is $2,437. The following shows the range of salaries paid in these cities:

Salaries of superintendents in cities of 10,000 to 25,000 population.

	Cities.		Cities.
$1,200–$1,500	3	$2,701–$3,000	48
1,501– 1,800	28	3,001– 3,300	6
1,801– 2,100	52	3,301– 3,600	12
2,101– 2,400	89	3,601– 4,000	9
2,401– 2,700	70	4,001– 6,000	6

Average salary of superintendents in cities of between 10,000 and 25,000 population, by groups of States.

Divisions.	Cities.	Average salary.
North Atlantic	142	$2,379
North Central	116	2,535
South Atlantic	22	2,157
South Central	36	2,592
Western	34	2,657

TABLE 2.—*Average salary paid to superintendents in the different States.*

States.	In cities of 4,000 to 10,000 population.		In cities of 10,000 to 25,000 population.	
	Average salary.	Cities reporting.	Average salary.	Cities reporting.
Alabama	$1,674	13	$2,233	3
Arizona	2,456	5	3,250	2
Arkansas	1,650	5	2,437	4
California	2,408	21	2,990	13
Colorado	2,262	12	2,500	1
Connecticut	1,852	22	2,509	11
Florida	1,583	3	2,100	1
Georgia	1,835	17	2,470	5
Idaho	2,543	5	4,000	1
Illinois	1,890	57	2,577	20
Indiana	1,931	37	2,677	18
Iowa	1,829	19	2,344	9
Kansas	1,836	18	2,337	8
Kentucky	1,786	16	2,250	4
Louisiana	1,660	8	1,900	2
Maine	1,647	18	2,060	5
Maryland	1,675	4	2,200	3
Massachusetts	1,993	64	2,350	29
Michigan	1,991	35	2,553	14
Minnesota	2,484	19	2,640	5
Mississippi	2,033	9	2,515	5
Missouri	1,735	27	2,120	5
Montana	2,540	5	3,180	5
Nebraska	2,063	11	2,100	1
Nevada	3,000	1	3,000	1
New Hampshire	1,698	5	1,930	5
New Jersey	2,251	32	3,097	19
New Mexico	2,133	3	2,250	1
New York	1,964	41	2,487	27
North Carolina	1,631	19	2,250	4
North Dakota	2,200	5	3,500	2
Ohio	1,933	53	2,478	23
Oklahoma	1,933	12	2,125	6
Oregon	2,007	13	2,400	1
Pennsylvania	1,675	101	2,199	40
Rhode Island	1,400	8	1,950	2
South Carolina	1,694	12	2,200	1
South Dakota	2,250	4	3,000	2
Tennessee	1,660	10	2,100	1
Texas	1,932	30	2,422	11
Utah	1,866	3	.....	.....
Vermont	1,785	7	2,200	3
Virginia	1,492	8	1,895	5
Washington	2,141	10	2,990	5
West Virginia	1,985	7	2,287	4
Wisconsin	2,024	25	2,407	10
Wyoming	2,066	3	2,400	1

There is a hopeful increase in superintendents' salaries in the smaller cities. During the two years 1911–1913, the salaries of the superintendents in 569 cities were increased, the minimum increase being $5 and the maximum $2,400. An increase of more than $1,000 was made in several instances in California, Georgia, Indiana, Illinois, Maine, and Minnesota. During the same period, 87 cities decreased the salaries of their superintendents, the decreases ranging from $10 to $950. Most of these decreases were made when a new superintendent was elected; thus, in one instance, when a superintendent receiving $2,700 a year resigned, a successor was elected at $2,200.

The following table presents the minimum and maximum increase and decrease in the salary of superintendents in cities between 4,000 and 25,000 population, for the two years 1911–1913:

TABLE 3.—*Change in superintendents and salaries in cities of 4,000 to 25,000 population 1911–1913.*

States.	Cities.	Change in superintendents.	Increase in length of term.	Number increased in salary.	Minimum and maximum increase in salary.	Number decreased in salary.	Minimum and maximum decrease in salary.
Alabama	19	7	1	5	$200– $300	2	$50–$200
Arizona	8	2	.....	3	80– 200	1	300
Arkansas	11	3	.....	5	100– 350	1	400
California	35	12	.....	19	60–1,250	1	200
Colorado	13	5	.....	6	100– 500	2	400– 800
Connecticut	40	11	.....	15	5– 300	5	100– 500
Delaware	.....	.....	.....	.....	.....	.....	.....
Florida	10	5	.....	1	650	.....	.....
Georgia	22	8	.....	10	60–1,000	2	100– 120
Idaho	7	2	.....	3	17– 400	.....	.....
Illinois	77	16	.....	35	60–1,100	6	250– 450
Indiana	59	10	2	29	100–2,400	1	200
Iowa	31	15	2	16	100– 600	6	100– 200
Kansas	27	11	2	14	100– 300	3	10– 400
Kentucky	20	7	2	9	20– 600	2	100– 200
Louisiana	12	4	.....	2	85– 700	2	50– 350
Maine	23	8	.....	11	50–1,000	1	50
Maryland	8	4	4	2	200– 300	.....	.....
Massachusetts	98	25	.....	36	50– 600	.....	.....
Michigan	51	9	6	38	50– 700	2	100
Minnesota	26	9	.....	19	200–1,200	1	100
Mississippi	18	5	2	5	50– 375	2	200– 300
Missouri	34	10	2	11	60– 220	4	50– 300
Montana	10	2	.....	6	100– 450	.....	.....
Nebraska	12	.....	.....	4	150– 300	1	300
Nevada	2	.....	.....	.....	.....	.....	.....
New Hampshire	14	5	.....	7	30– 800	2	100– 400
New Jersey	55	11	5	33	50– 750	2	100– 250
New Mexico	4	2	.....	3	200– 500	.....	.....
New York	73	21	6	43	30– 600	2	250
North Carolina	25	8	1	7	90– 500	2	300
North Dakota	7	1	.....	5	100– 400	.....	.....
Ohio	80	26	23	31	99– 800	12	10– 400
Oklahoma	18	7	3	5	200– 750	2	250– 950
Oregon	14	5	4	7	150– 200	1	100
Pennsylvania	151	30	13	47	100– 800	7	100– 400
Rhode Island	14	6	.....	.....	.....	1	200
South Carolina	15	4	1	7	100– 500	1	200
South Dakota	6	2	.....	3	100– 500	.....	.....
Tennessee	11	.....	.....	5	100– 300	.....	.....
Texas	42	5	3	18	100– 400	2	400– 500
Utah	3	1	.....	2	300	.....	.....
Vermont	10	1	.....	4	50– 150	1	400
Virginia	16	3	.....	5	50– 500	2	75– 350
Washington	15	3	.....	6	100– 500	.....	.....
West Virginia	12	2	2	6	150– 400	.....	.....
Wisconsin	36	9	.....	20	100– 500	4	50– 100
Wyoming	5	2	.....	1	150	1	200
Total	1,299	344	83	569	.....	87	.....

TEACHERS.

There is a decided tendency in the smaller cities to raise the standard for beginning teachers. Of 1,350 cities reporting, 474 require elementary teachers to be normal-school graduates; 630 require only a high-school education; the remainder fail to specify what qualifications are demanded.

Of the 1,350 cities reporting, 907 require high-school teachers to be college graduates; 709 employ college graduates without experience.

In reply to a more recent inquiry, 360 say that during the past year they have demanded additional educational and professional preparation.

One means of improving teachers has not received the attention it should—a salary schedule based upon qualifications and efficiency, rather than upon experience. Promotion on experience alone does not always reward the teachers who are making the most improvement, and does not always tend to call forth the best effort on the part of teachers. It may, however, help retain teachers in service for a greater number of years, and should, up to a certain point, be a factor in salary schedules. Advanced education and professional training are often not rewarded. It has been said that in formal salary schedules the premiums usually given are too low for education and too high, relatively, for experience in teaching. The tendency at present, however, is strongly toward schedules based upon experience, education, training, and success, with the teachers grouped into three or four classes.

Nearly all superintendents who are promoting largely on education and efficiency testify to the practical value of such schedules. The superintendent of schools at Owensboro, Ky., says:

> One of the far-reaching movements of the past year was the organization of the system for the employment and promotion of teachers and fixing their salaries. The new schedule, which classifies teachers according to experience, preparation, and success, rather than upon experience alone, is having the effect of arousing teachers to the necessity of making professional preparation for the responsible work they have to do. Never before in the history of the schools have so many teachers attended summer schools, colleges, and universities. More teachers' periodicals are being read than ever before, and teachers are taking every advantage to improve themselves in the technique of their profession.

The following rules regarding the promotion of teachers on merit are typical:

Houghton, Mich.—Teachers are classified into A, B, and C grades. The superintendent ranks them, C below 75, B 75–90, A 90–100. Anyone who ranks C for the period of one year is not retained in the service; teachers ranking A and B receive the regular increase until the first maximum is reached. They remain at this salary for one year, during which, if their grade is A, they are permitted to participate in an annual increase until the final maximum is reached.

Ottumwa, Iowa.—Teachers are divided into three groups, A, B, and C, on the basis of their efficiency. Those ranking A receive $5 a month increase each year until they reach the maximum of their grade. Those ranking B receive an advance of $2.50 a month increase each year until the maximum of their grade is reached. Those ranking C may be elected without an increase of salary.

Astoria, Oreg.—A teacher may be given a double or triple increase at the end of the year upon recommendation of the superintendent.

Freeport, Long Island, N. Y.—The matter of salary increase is based upon merit and efficiency. Teachers are formally rated by the superintendent twice each year.

Cripple Creek, Colo.—The salary schedule provides for progressive classification for each succeeding year until the maximum is reached. A teacher may advance one more class each year or she may remain more than one year in the same class. A

teacher may also be demoted to a lower class if her work does not show continued interest and improvement.

Bristol, Va.—After a teacher has entered the system she is sure of an annual advancement until a maximum is reached, provided she makes a success grade of 90. All teachers must attend a summer school at least once every five years.

Beaver Falls, Pa.—No teacher is advanced in salary after she has ceased to advance in efficiency and successful experience; and fitness for increase is based upon an efficiency record kept by the superintendent. A definite statement showing wherein a teacher fails to meet the requirements is furnished to each teacher who is not given the increase in salary provided by the schedule.

Dayton, Ky.—Teachers are awarded an increase in salary for attendance at summer school.

Moline, Ill.—Teachers drawing a schedule salary for the third year are granted $5 a month increase upon presentation of satisfactory evidence of summer-school work or extended travel.

MEASURING THE EFFICIENCY OF A TEACHER OR A SCHOOL.

A few years ago, if a superintendent of schools had been asked how he measured the efficiency of his schools or of his teachers, he would have answered only in the vaguest of terms, usually saying that the eighth-grade pupils had been well prepared for high school and that the high-school pupils in college were doing creditable work. To-day many of the superintendents in the smaller cities are attempting to judge the efficiency of their schools by other and more reliable standards. Although only a beginning has been made, the results as reported are uniformly encouraging.

One of the ways of judging the work of a school is by means of standardized tests, such as the Courtis tests in arithmetic, the Thorndike and Ayres test for measuring the quality of handwriting, the Hillegas and Rice scales for measuring English composition. Of 756 cities reporting, 389 are making use of standardized tests for testing teaching efficiency. The following extract from a letter by D. C. Bliss, superintendent of schools at Montclair, N. J., is typical of many received at this bureau regarding the measuring of efficiency:

> It may be stated, with little fear of contradiction, that no system of testing which can be devised can ever take the place of the superintendent's personal and frequent visits to the classrooms of the teachers under his care. The most elastic test becomes arbitrary unless there is some knowledge on the part of the examiner of the difficulties with which the teacher is contending. * * *
>
> To support the superintendent's personal opinion, however, there may well be documentary evidence of a teacher's success or failure. This comes wholly from the progress of the class, for the demand is not for a knowledge of psychological theory, but for the power to achieve results. At the beginning of the year the class should be tested in one or two fundamental subjects, such as English or practical arithmetic, with the purpose of determining its measure of attainment at the time the new teacher for the year assumes charge. This gives a standard for comparison. Whether the class improves upon this standard or falls below it as the months go on, the responsibility for the success or failure belongs to its present teacher. It is not necessary to test in all subjects. It is generally safe to assume that a teacher who is doing good, solid work in the few subjects most needed by pupils who are going out into a world of

practical living is the kind of teacher who carries her faithfulness and ability into all departments of her work. Unless the superintendent sees from his visits to the room that things are going radically wrong, a class need not be tested frequently. Ordinarily, a test at the beginning of the year, one at the end, and one at some time during the intervening months will be sufficient.

Testing for efficiency does not imply a long, formal examination of the old-fashioned type, with the results marked in per cents and a teacher's ability estimated by the place her class attains in the scale for the whole city. With the varying personnel and environment of the different classes, such an estimate is manifestly grossly unfair to the teacher. The fairer way is to use the standardization methods employed by Dr. J. M. Rice, Dr. Thorndike, or Mr. Courtis, establishing from the results obtained all over the city an average standard for that city, to the attainment of which a class, and through the class the teacher, may rightly be held. In this way the teacher's work is judged on its own merits above or below the established standard, not by comparison with the work of another teacher in a school in which the conditions may be many times easier than those she has to contend with.

In one instance, at least, a grammar-grade supervisor has worked out a standard test in English from the composition of the pupils under her supervision. Miss Gertrude Earhart, supervisor of grammar grades at Boise, Idaho, who has formulated such a scale, says:

In an attempt to standardize the work in composition in the grammar grades, the "Hillegas scale for measuring composition" was first used. As the use of any language scale was new to us, we were somewhat inept in evaluating the work of our pupils, particularly the younger grades, according to this scale. In the hope of helping the teachers to something more definite, a language scale from the compositions of our own pupils was made. A composition from each pupil in the fifth, sixth, seventh, and eighth grades of our schools was read and placed in one of several groups. After all the papers were classified in groups for each grade, the groups for the sixth grade were ranked beside the fifth-grade groups. As would be expected, the lowest group of sixth-grade papers was better than the lowest group of fifth-grade papers, and the best group of sixth-grade papers ranked above the best fifth-grade papers. The seventh-grade papers were ranked beside the sixth, and the eighth beside the seventh in the same manner, each grade ranking higher at both the lower and upper end of the scale than the grade a year behind it. The distribution of compositions for each year followed the normal curve of distribution.

This attempt to make a continuous scale which would cover work from the beginning of the fifth to the end of the eighth year was unsatisfactory, however, as it was hard to balance so much skill in form, punctuation, etc., in a fifth-grade reproduction exercise, as worth so much thought, facility in expression, etc., in an original eighth-grade exercise, so the idea of using a continuous scale for the four grades was abandoned and a scale of six or seven groups was made for each grade. The lowest group for each grade was numbered 1, as we did not expect ever to have any lower classes; the second group, 2; and so on, so as to leave room for indefinite expansion at the upper end of the scale. These scales were then typed and put in the hands of each teacher, and she graded the papers of her class according to the scale. Once a month papers graded by the scale were collected, the results tabulated by building and by grade, and the tabulation given to the teachers. These results showed a marked increase from month to month in the number of papers in the upper grades of the scale. This improvement was doubtless due in a great measure to clearer ideas in the teacher's mind of what could be expected from her grade.

That much of the work was accomplished last year, and this year we have gone a step further and have attempted to have the pupils of the sixth, seventh, and eighth

grades evaluate their own work according to the scale before it is handed to the teacher. The teacher then examines the paper and places her grade below that of the pupil. The pupils, contrary to all prediction, have shown very fair judgment in grading their own papers and have made great efforts to raise their grades.

While the scales we use are open to criticism at numerous points and are unsatisfactory to us in certain respects, yet we feel that by their use we have been able to do more definite work in improving the quality of composition written by our pupils, and we have been able to differentiate the kind of work done in the grades, so that each grade has some definite things to accomplish.

Practical schoolmen are, however, pretty well agreed that standardized tests, valuable as they are, are but one means of testing teaching and a poor substitute for the observance of actual classroom work. Only recently have any attempts been made to set up well-defined standards for judging a teacher's work, and as yet there is no agreement among schoolmen as to the points upon which a teacher should be graded or the relative value of these points. Among the standards that superintendents are using are those formulated by Dr. Frank McMurry in his "Report on the quality of classroom instruction in the New York City schools."[1] In the Ohio State survey the bureau of municipal research used a card containing points on which teachers were judged. As this card is in use among some of the smaller schools, it is printed on the following page.

[1] See, for a critical view of these standards, the "Reply of the district superintendents of New York to the report of the Hanus inquiry," edited by J. S. Taylor, New York, 1914.

TEST CARD OF THE NEW YORK BUREAU OF MUNICIPAL RESEARCH.

[*Obverse.*]

TO HELP TEACHERS DISCOVER THEIR OWN STRENGTH AND WEAKNESS.

TO HELP SUPERVISORS HELP TEACHERS WHERE NEED IS GREATEST.

Issued by the New York Bureau of Municipal Research, 261 Broadway, New York.

School:	Grade:	H. S. Year:	Teacher:	Date:

I—PERSONALITY OF TEACHER (Check ✓):

Illustrations:

1. Teacher appears to be—

vigorous	weak
poised	nervous
neat	slovenly
at ease	embarrassed

2. Voice is (Check ✓)—

pleasing	harsh
clear	indistinct
low	high

3. In her personal relations with pupils does she appear (Check ✓)—

to stimulate	to suppress	courteous	rude
to win cordial cooperation	to antagonize	encouraging	nagging
to be sympathetic	harsh	firm	weak
strict	lax	tactful	blundering
even tempered	irritable	enthusiastic	diffident
reasonable	unreasonable	quick to react	slow to react
tolerant	intolerant	quiet	noisy
dignified	undignified	systematic	disorderly
		resourceful	dependent

Illustrations:

II—THE RECITATION:

Illustrations:

1. No. of pupils in class appearing—

to be interested	indifferent
energetic	lazy
independent	dependent

2. Responses of pupils: No. giving—

(a) fluent topical recitations
(b) word or phrase responses
(c) sentence responses
(d) incoherent responses
(e) failing to answer

3. No. of pupils in section—

not reciting ..... reciting once ..... twice .....
three times ..... more than three times .....

4. No. pupils in room, but not in reciting section

No. industrious ..... indolent .....
minding their own business
interfering with others

5. No. of pupils asking—

pertinent questions of fact
relevant thought-provoking questions

6. Time lost (Check ✓ under yes and no)—	Yes.	No.	No. min.	Illustrations:
(a) Calling class				
(b) Dismissing class				
(c) Distributing materials				
(d) Indistinct speech of teacher				
(e) Indistinct speech of pupils				
(f) Unnecessary talking of teacher				
(g) Unnecessary talking of pupils				
(h) Failure to have devices ready				
(i) Use of ill-adapted devices				

TEST CARD OF THE NEW YORK BUREAU OF MUNICIPAL RESEARCH.

[*Reverse.*]

	(Check ✓.)					
	Not noted.	Not at all.	Slight.	Medium.	Notable.	Evidence and remarks.
II—7 TEACHING, ABILITY AS SHOWN BY—						
(a) Extent to which teacher's questions are—						
(1) Thought-provoking						
(2) Calling for facts						
(3) Suggesting the answer						
(4) Answerd by "yes" or "no."						
(5) Irrelevant						
(6) Not definite—vague						
(b) Extent to which material to recitation is—						
(1) Confined to text						
(2) Within pupil's comprehension						
(3) Related to children's lives and experiences.						
(4) Adapted to children's present or future needs.						
(5) Worth while						
(c) Extent to which the teaching—						
(1) Is rambling						
(2) Is formal, mechanical						
(3) Stimulates initiative of pupils						
(4) Requires independent thinking						
(5) Develops pupil's resourcefulness						

	(Check ✓.)					
	Not noted.	Not at all.	Slight.	Medium.	Notable.	Evidence and remarks.
TEACHING ABILITY—						
(d) Extent to which pupils—						
(1) Had a clear idea of purposes of lesson.						
(2) Were self-reliant						
(3) Tested their own solutions						
(4) Acted and thought on their own account.						
(5) Cooperated with teacher and classmates.						
(6) Persisted in getting desired result.						
(7) Differentiated between essentials and nonessentials.						
(8) Organized their material						
(9) Seemed well-grounded in previous work.						

	Yes	No.
8 Was the Assignment—		
a. Definite and clear?		
b. Related to present lesson?		
c. Such that the pupils were prepared to attack it intelligently?		
d. Formal—from textbook?		
e. By topics or problems?		

(6) Requires cooperation of pupils					
(7) Is fixed on essentials					
(8) Requires pupils to organize material					
(9) Utilizes children's experiences					
(10) Clears up pupil's difficulties					
(11) Shows use of material in solution of present or future problems					

f. Hastily made at dismissal?		
g. Omitted?		

9 Correction of Essential Errors—

(1) Describe method used.....

(2) Are nonessential errors too much emphasized?.....

(3) What record is kept of recurring errors likely to retard progress of pupils?.....

Distractions for pupils or teacher—		
Noise in halls..... Storm.....	Temperature.....	Oppressive.....
Noise in street..... Interruptions.....	Bad air.....	Fresh air.....
	Teacher made adjustments....	Did nothing.....

.....*Examiner.*

Many superintendents, realizing that if a teacher is to be judged she must know to what standards she must attain to be considered successful, have formulated standards of their own for the guidance of their teachers. It is impossible to give examples of all the many standards in use, but the following are presented as showing that superintendents are earnestly striving to place the testing of teachers upon a more rational basis.

Petosky, Mich.

1. Was the assignment of the lesson (1) carefully made, (2) definite?
2. How much genuine interest was there on the part of the class?
3. What part of the class had prepared the lesson?
4. What part of the time was used by the teacher in explanation or demonstration?
5. Were the explanations or demonstrations (1) clear, (2) concise?
6. How much of the time was used by the students in actual recitation?
7. Did the students (1) rise promptly, (2) face the class, (3) answer in complete declarative sentences?
8. Were the teacher's questions (1) rapid, (2) clear, (3) to the point?
9. Was the work at the board done (1) neatly, (2) rapidly?
10. What was the inspirational power of the teacher?

Ottawa, Kans.

	Points.	Points deducted.
Native ability: (50)		
Initiative (originality)	5	
Self-control	5	
Vivacity	5	
Enthusiasm	5	
Tact	5	
Sympathy	5	
Industry	5	
Adaptability	5	
Sense of humor	5	
Fairness	5	
Acquired efficiency: (35)		
Academic education	5	
Professional training	3	
Interest in educatiuon	3	
Teaching ability	5	
Discipline	5	
Ability toga ornize and present subject matter	5	
Appreciation of values	3	
Professional growth (reading, study, travel)	3	
Preparation (daily, weekly, annually)	3	
Social efficiency: (15)		
Ability to secure and hold the respect of pupils and community	10	
Loyalty (to associates, principal, superintendent, board)	5	

Owensboro, Ky.

1. Teaching ability in (*a*) preparation, (*b*) skill in presentation, (*c*) results obtained.
2. Ability in discipline: (*a*) Attitude of pupils toward the teacher; (*b*) attitude of pupils toward each other; (*c*) attitude of pupils toward their work; (*d*) respect of pupils for school property; (*e*) ability to keep pupils busy; (*f*) behavior of pupils on school grounds.

Owensboro, Ky.—Continued.

3. Personal and professional: (*a*) Cooperation with principal, school officers, and other teachers; (*b*) visiting homes—success in enlisting their cooperation; (*c*) patience and sympathy in dealing with pupils; (*d*) professional interest (interest in work, energy, and enthusiasm, efforts for self-improvement, such as reading educational periodicals, visiting other schools, attending and taking part in teachers' meetings, etc.).

Muscatine, Iowa.

I. Qualification..... 0 to 20
   1. Natural ability and personality.....(0 to 10)—.....
   2. Scholarship.....(0 to 5)—.....
   3. Professional training.....(0 to 5)—.....
II. The Recitation..... 0 to 40
   1. Subject matter—appropriateness of.....(0 to 5)—.....
   2. Purpose.....(0 to 5)—.....
   3. Plan.....(0 to 5)—.....
   4. Preparation—
      a. Teacher.....(0 to 5)—.....
      b. Pupils.....(0 to 5)—.....
   5. Skill.....(0 to 5)—.....
   6. Thoroughness.....(0 to 5)—.....
   7. Assignment.....(0 to 5)—.....
III. Relation of Teacher to the School and Community..... 0 to 40
   1. Classification and gradation.....(0 to 5)—.....
   2. Industry, and interest in the aims and plans of the school community.....(0 to 5)—.....
   3. Governing ability.....(0 to 5)—.....
   4. Sanitary conditions and neatness.....(0 to 5)—.....
   5. Care of school property, keeping records, making reports.....(0 to 5)—.....
   6. Cooperation with the other teachers, the board, and superintendent.....(0 to 5)—.....
   7. Libraries, reading circles, and journals.....(0 to 5)—.....

Total..... .....

PROFESSIONAL INVESTIGATION.

Ninety-four cities of the smaller group report a school survey within the last three years. Many of these cities, however, are in Ohio and other States that have had State-wide surveys. Again, others include surveys of retardation and elimination made by the superintendent and teachers. This bureau has no data showing just how many surveys have been made in cities of 25,000 population and less by committees composed of men from other school systems. In the Report of the Commissioner of Education for 1913 a summary was given of the surveys made in six of the smaller cities, namely: Boise, Idaho, Montclair, N. J., East Orange, N. J., Greenwich, Conn., Cohassett, Mass., and Newburgh, N. Y. The following is a summary of the surveys made in the smaller cities not included in the list given in the chapter on city schools in the commissioner's report for 1913:

Grafton, W. Va.—The board of education at Grafton, W. Va., a city of 8,000 population, not being satisfied that they were expending the school funds to the best

advantage, invited three practical school men of their own State to make a survey of the schools of that city and to make a definite report regarding the needs of the schools and the best method of economizing on the funds available so as to provide for these needs.

The committee, composed of Dr. J. N. Deahl, head of the department of education in the State university, Mr. Joseph Rosier, superintendent of schools, Fairmont, and Mr. Otis Wilson, superintendent of schools, Elkins, were asked to make the survey, and accepted on condition that their report should in no way affect the standing of the superintendent. The board assured these men that the superintendent was leaving, and that it was desired to have an investigation before the election of a new superintendent.

The investigation covered the following points: Educational needs of the community from an industrial standpoint, the professional training and equipment of the teachers employed, the course of study in use in the schools, the methods of teaching and the plan of school organization, methods of administration as related to the assignment of teachers, possible consolidation of departments and grades, current expenditures, the purchase of supplies, and high-school equipment.

The committee made no attempt to discuss theories, but recommended among other things that a cooperative industrial course, similar to that at Fitchburg, Mass., be instituted; that night classes be formed for the boys and girls employed in the glass factories; that the present organization of the high-school work into four curricula should be made less restrictive; that the grades below the high school be reorganized so that the average enrollment for each teacher would be between 30 and 40 pupils and that the money saved be applied to the employment of instruction of manual training and domestic science; that the grade work could be improved by giving less time to the formal study of United States history, geography, physiology, and arithmetic, the time assigned for arithmetic being excessive.

Ogden, Utah.—The schools of Ogden, Utah, being criticized by some of the citizens of that city, the board of education asked the faculty of the University of Utah and the United States Commissioner of Education to appoint a committee to investigate conditions in the schools of that city. The following committee was appointed: Charles S. Meek, superintendent of schools, Boise, Idaho; George A. Eaton, principal of the Salt Lake City high school; Edward J. Ward, extension lecturer of the University of Wisconsin; W. G. Roylance, professor of sociology in the University of Utah; and W. S. Deffenbaugh, of the United States Bureau of Education. The committee, on account of the shortness of the time allowed for making the survey, divided their work, assigning to Messrs. Meek, Eaton, and Deffenbaugh the internal organization of the school and to Messrs. Ward and Roylance the social and civic relationship of the school and the community. The first-named gentlemen investigated those phases of school organization that had been most severely criticized, namely, the power granted the superintendent of appointing and dismissing employees, departmental teaching in the grammar grades, junior high schools, a free elective system in the high school, the course of study, the inability of the schools to keep pupils in school, character of the teaching, half-time plan as outlined by the superintendent for the seventh and eighth grades, and the method of supervision.

The two other members of the committee discussed at length the systematic organization of the political, economic, and recreational life of the people of the city. They recommended that the board of education be abolished and that the schools be placed under the direct management of the city commission, saying in support of this recommendation:

> The various sorts of duties which are now handled by the school board without business-like division, such as would make the definite placing of responsibility possible, may easily be distributed among the several commissioners on the precise lines of their present division of responsibility. For instance, the finances of the

public-school system would be taken care of by the department of finance of the city government and be under the supervision of the head of that department; the care of the school buildings and grounds would be looked after by the department of the city commission that has charge of public property and be under the supervision of the head of that department; the work of truancy prevention, sanitary inspection and so on, would be included in the care of the department of public safety.

It was recommended also that the present commission be increased from three to five members, two constituting the department of education. This part of the report also discussed and recommended the plan of part time in school and part time at work in shops, offices, etc.

Nutley, N. J.—The school board of Nutley authorized at its regular meeting January 27, 1914, the superintendent of schools of that town to make a survey of the needs of the schools. Aided by the Bureau of Municipal Research of New York City, a thorough survey of school conditions was made and a report submitted to the board under four main heads: First, educational needs; second, geographical conditions and real estate development; third, a sociological study of the people served; and, fourth, recapitulations, deductions, and conclusions. It was recommended that the schools be organized into three groups and on the following plan:

Group I. Kindergarten and grades 1 to 6, located in the residence section near the people.

Group II. Grades 7 to 9 to be known as the junior high school and located in the geographic center of the town.

Group III. Grades 10 to 12 to be known as the senior high school, located in the geographic center and about the civic center.

The greater part of the report is confined to a discussion of buildings and further needs.

Lawrence, Kans.—A social survey of the city of Lawrence has just been completed by Profs. F. W. Blackman and Ernest W. Buyers, of the department of sociology of the University of Kansas. The study includes city planning, municipal administration, industry, and trade, education, churches, recreation, delinquency, dependency, housing, public health, and sanitation. The survey exhibit was made October 7, 8, and 9, 1914, in conjunction with the meeting of the Kansas League of Municipalities, which met at Lawrence on those days. The aim of the committee in holding the exhibit was to direct the attention of the towns and cities to a more scientific method of community study and progress.

Clarion, Pa.—The superintendent of schools at Clarion, Pa., and members of the faculty of the State Normal School located at that place made a survey of the Clarion schools for the purpose of discovering: First, what a majority of the pupils of the schools of Clarion do after leaving the various grades; second, why they quit school; third, why they went to other schools and finished their work there. The committee found that the boys generally did one of three things—worked in town as clerks, worked at manual labor, or took up some profession. From the standpoint of the school, it was found that two causes contributed largely to their withdrawal: First, the work of the school did not function in their daily life; second, the social part of the school life was much neglected, so much so that many pupils looked upon the school building as a prison. Many, therefore, went to other schools where they could get what they needed and where there was more attention given to the social side of school life. As a result of this survey, a night school was opened for boys and girls employed as clerks in stores and in offices. Because of the great number who leave school to work at manual labor, the school board introduced courses including sewing and manual training. The superintendent says:

Because of work along the lines indicated by the survey, we have not had a pupil to leave the high school to go to the State Normal School (in Pennsylvania pupils often quit high school to attend normal schools). In two years the high school has grown from 29 to 89.

However valuable a school survey by outside parties may be, a continual survey by the superintendent and his assistants is of definite worth to the school system. During the last few years many superintendents have made valuable and interesting studies of retardation in their respective schools; others have made careful analyses of unit cost in order to determine just how to use the money appropriated most economically. Among the many interesting reports that indicate careful analysis of conditions to determine the efficiency of schools is the one just issued by the school board of Solvay, N. Y. Realizing that the efficiency of the Solvay schools could not be measured by the preparation of children who passed the regents' examination, or who had done well in college, the superintendent made an analysis of conditions to determine the efficiency of his school from a knowledge of the following facts:

1. The percentage of retarded or overage pupils.
2. The proportion of pupils who completed the elementary school.
3. How many of these continued into the high school.
4. What proportion of pupils who entered our school were graduated from high school.
5. The ratio between the pupils above the compulsory age limit and those below it.
6. The flexibility of the promotion interval.
7. The money waste from unnecessary nonpromotion.
8. The attention paid to backward and exceptionally bright children.
9. The kind and amount of help given to non-English-speaking children.
10. The ability of the children to spell, write, compute, and compose (the so-called school arts), and to reason in arithmetic, geography, history, and practical science and arts.
11. The attention given to the children's health and recreation.
12. The practical values of the courses of study judged from the standard of social values.
13. The extent to which the instruction functioned at the pupils' homes and in the outside world.
14. Vocational guidance and the opportunities for vocational training.
15. The diversity of educational opportunities to meet the naturally very diverse minds of 1,200 children.

ORGANIZATION AND COURSE OF STUDY.

REORGANIZATION.

Although it is not possible to describe many of the plans of reorganization that have taken place among the schools of the smaller cities within the last year or two, the following examples of attempts to broaden the scope of the schools are interesting and undoubtedly indicate progress:

Boise, Idaho.—Realizing that the high school of his city should be more closely related to the life of the community, the superintendent of schools at Boise has reorganized the high school of that city by introducing industrial studies and by requiring only the subject of English. Sixty-three units of work are offered, 16 units being required for graduation. Of the 63 units offered, 31 represent the newer school activities, and 32 the traditional subjects. The 31 units offered in the newer activities

in distinction from the traditional subjects consist of 10 units of commercial studies, 60 of agricultural, 6 of home economics, 20 of industrial art, 30 of shopwork in wood and concrete, and 4 of mechanical and architectural drafting. Since this reorganization the high-school enrollment has more than doubled, there being 400 students in the high school in 1910–11, while in 1913–14 there were 997 enrolled. During the period from 1910 to 1914, the enrollment in the elementary schools increased only 19 per cent, which would indicate that the increased high-school enrollment was not occasioned by the growth of the city; nor can the growth of the school be attributed to an increase in the number of nonresident students.

Reorganization in Boise has not made the traditional subjects any less popular in that city. In 1910 there were 1,600 pupils enrolled in the traditional subjects, allowing four enrollments for each of the 400 pupils. In 1914 there were 2,800 enrollments in the traditional subjects and 1,200 in the newer subjects, allowing 400 enrollments for each of the 1,000 students.

To prevent pupils from "scattering" in electing their subjects, a sponsor system is provided; a teacher is selected as sponsor for a group of 25 pupils when they enter high school and she continues to act in this capacity for the same group for the entire four years, advising pupils with regard to the subjects they should pursue.

Sewickley, Pa.—The superintendent of the Sewickley schools, after a visit to the schools of Gary, Ind., was convinced that he could not adopt all that he had seen at Gary, but that he could make use of the Gary idea of giving more time to play and industrial work. At that time there was no supervised play or industrial work in Sewickley. The question was how to introduce these without adding materially to the expense of instruction. A program was arranged whereby the regular classroom teachers were kept occupied while the students were in the manual-training department, domestic-science laboratory, or on the playground. The work is departmentalized throughout the grades—that is, there are special teachers for music and drawing, language and literature, grammar and composition, physical training, history and civics, manual training and domestic science. The following is an outline of the general program which permits half the children to be under the regular classroom instructor and the other half under the special teachers, there being eight teachers for regular classroom work and eight for the special subjects previously enumerated:

PROGRAM OF THE SEWICKLEY (PA.) SCHOOLS.

Grade.	Room.	180 minutes a. m.				150 minutes p. m.			
		90 minutes.		90 minutes.		75 minutes.		75 minutes.	
First	1	1B		1A		1B		1A	
Second	2	2B		2A		2B		2A	
Third	3	3B		3A		3B		3A	
Fourth	4	4B		4A		4B		4A	
Fifth	5	5B		5A		5B		5A	
Sixth	6	6B		6A		6B		6A	
Seventh	7	7B		7A		7B		7A	
Eighth	8	8B		8A		8B		8A	
Special Subjects		45 minutes.	45 minutes.	45 minutes.	45 minutes.	37 minutes.	37 minutes.	37 minutes.	37 minutes.
Music and drawing	9	1A	2A	1B	2B	3A	4A	3B	4B
Language and literature	10	3A	4A	3B	4B	1A	2A	1B	2B
History and civics	11 or 12	8A	7A	8B	7B	6A	5A	6B	5B
Grammar	12 or 11	7A	8A	7B	8B	5A	6A	5B	6B
Music and drawing	13	5A	6A	5B	6B	7A	8A	7B	8B
Domestic science and manual training	14 and 15	6A	5A	6B	5B	8A	7A	8B	7B
Physical training	Playroom	2A	1A	2B	1B	4A	3A	4B	3B
		2A	3A	4B	3B	2A	1A	2B	1B

A study of this program shows that while the B division of a grade is in regular classroom during the first 90-minute period, the A division is having work with the special teachers. The program is reversed for the second 90-minute period. The following program for the sixth grade illustrates the plan in detail:

PROGRAM OF GRADE 6, YEAR 6.

First 90 minutes. 8.45–10.15 a. m.
- 6B. Room 6.
  - 8.45– 8.55 Opening exercises—10 minutes.
  - 8.55– 9.10 Spelling—15 minutes.
  - 9.10– 9.50 Arithmetic—40 minutes.
  - 9.50–10.15 Geography—25 minutes.
- 6A. Room 13.
  - 8.45– 9.30 [1] Domestic science, manual training—Monday, Wednesday; or physical training—Tuesday, Thursday, Friday.
  - 9.30–10.15 Music and drawing—Tuesday, Thursday, Friday.

Second 90 minutes. 10.15—11.45 a. m.
- 6A. Room 6.
  - 10.15–11.45 Spelling, arithmetic, geography, as for 6B.
- 6B. Room 13.
  - 10.15–11.00 [1] Domestic science, manual training—Monday, Wednesday; or physical training—Tuesday, Thursday, Friday.
  - 11.00–11.45 Music and drawing—Tuesday, Thursday, Friday.

First 75 minutes. 1.00–2.15 p. m.
- 6B. Room 6.
  - 1.00– 1.35 Reading—35 minutes.
  - 1.35– 1.55 Writing—20 minutes.
  - 1.55– 2.15 Physiology—20 minutes.
- 6A. Room 11.
  - 1.00– 1.37½ History and civics.
  - 1.37½–2.15 Grammar and composition.

Second 75 minutes. 2.15–3.30 p.m.
- 6A. Room 6.
  - 2.15– 3.30 Reading, writing, physiology, as for 6B.
- 6B. Room 11.
  - 2.15– 2.52½ History and civics.
  - 2.52½–3.30 Grammar and composition.

By organizing the Sewickley schools on this plan the children in the first four grades have 412 minutes a week for play under the direction of a special playground instructor, the fifth and sixth grades 135 minutes, and the seventh and eighth 112 minutes. The superintendent says: "This plan has been in operation two years and has proved successful from an educational and a financial point of view. The old plan, with the present additions to the program of work, would require a longer day and would be more expensive."

Ardmore, Okla.—The superintendent of schools at Ardmore, Okla., has reorganized the elementary schools of that city into 24 terms of three months each, so that pupils may be promoted every three months. According to reports for that city, a pupil who has completed the work of any term is never required to repeat that work. If a pupil fails in one or two subjects, he is conditioned on these and allowed to pursue his work with his class. During four weeks of this time he reviews and does extra

[1] Domestic-science and manual-training periods are double periods, 90 minutes, from 8.45 to 10.15 for 6A and from 10.15 to 11.45 for 6B.

work on the subject in which he is conditioned. It is claimed that very rarely do pupils fail to make up work under this plan. If a pupil actually fails in his work and is not promoted, he fails on a very small unit and is not so discouraged as he would be if he had to take the entire year over. The plan contemplated is to give four of these 12-week terms a year, with one week of vacation at the close of each term. This plan will enable a child to complete an eight-year course in six years. The results of the plan, which was put into operation only during the last year, are described by the superintendent as follows:

> During the past summer we had only 10 weeks of school, not compulsory but optional. We found that more pupils took the work than we anticipated. The teachers discovered that the children did better work than in winter. The forenoon was devoted to classroom work and the afternoon to laboratory work, physical training, etc. The experience we have had so far encourages us to believe that it is going to be a very satisfactory method of organization.

REORGANIZATION IN THE SEVENTH AND EIGHTH GRADES.

One of the problems now before the schools is to reorganize the upper grammar grades so that they will articulate more closely with the high school. One of the steps that many of the schools have taken is that of organizing the seventh and eighth grades on a departmental plan. Arguments for and against the plan are sufficiently familiar. In general the opinion of superintendents in the smaller city schools who have given the plan a trial is that their schools have become better, that there are fewer failures in the seventh and eighth grades and in the high school, and that there is a larger percentage of eighth-grade graduates entering high school. Some superintendents in the cities under consideration have definitely reorganized their school system on a "six-and-six" plan.[1]

CREDIT FOR WORK OUTSIDE OF SCHOOL.

How school life and home life may be more closely and definitely united is a question that many of the smaller cities are trying to solve by giving school credit for household, farm, or shopwork done at home. Another reason for giving credit for home work is that extensive industrial courses can not be offered in the smaller cities on account of the lack of funds. Many superintendents in the smaller towns and cities can not secure funds to introduce courses in manual training, cooking, sewing, music, etc.; 382 of these cities report that they do not have courses in industrial subjects because boards will not or can not appropriate the funds.

Credit for home work in some of the smaller towns takes the place of regular courses in manual training and domestic science; while other cities, well equipped for teaching industrial subjects, give credit for work done outside of school, so that the children may work in part under real life situations and not entirely under artificial school conditions.

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[1] See chapter VI, p. 150.

Some schools give credit for almost any work done in the home, the parents grading the pupil, while other schools allow credit only for such work as can be supervised and standardized by the school authorities.

There are several plans for allowing credit. In high schools requiring 15 or 16 points for graduation, the usual plan is to allow a unit credit for definite home tasks. In the elementary schools a few points are added to a pupil's grade in the industrial subjects or a half holiday is granted to a pupil after he has earned a certain number of credits.

That the giving of credit for home duties can be made to help vitalize school life is acknowledged, but school men are not yet agreed that credit should be offered for any work done in the home and that the parent alone should be the judge of the quality of the work.

The home-credit course offered at Franklin, Ohio, is worthy of note:

HOME-CREDIT COURSE, FRANKLIN, OHIO.

Credit may be given for work aside from that of the regular school hours, but done in correlation with the high school and under the direction of the superintendent of schools, in music, art, manual training, domestic science, agriculture, and commercial lines, as follows:

1. In music and art, not to exceed a total of one-half credit or unit in any one year, and a total of not to exceed one unit in all four years.

(*a*) Pupils playing in the high-school orchestra and whose work therein has been satisfactory shall be entitled to one-fourth credit each year, providing they have been present at 30 or more practice-meets of at least 40 minutes each and have played, if required, at public-school entertainments. Such credit will be given by the superintendent of schools upon the recommendation of the public-school instructor in music.

(*b*) Credits may be given for lessons in vocal or instrumental music under teachers of standard attainments, the time and number of lessons to be the same as in (*a*), and final credit obtained in same manner.

(*c*) A credit of one-fourth unit may be given for a course of at least 36 lessons of at least 40 minutes each in art. Such course must develop free-hand drawing, but may include designing, painting, basketry, weaving, hammer, bead or leather work, clay modeling, or any of the various lines included under art in public schools in general. Credit for such work to be given by the superintendent after conference with the art teacher, if there be one.

2. For any course that may reasonably take the place of manual training or domestic science as taught in the public school.

A—FOR GIRLS.

(*a*) A systematic course that shall include plain cooking, baking (bread, cake, and pastry), the proper care of the kitchen and utensils, and the proper setting and care of the table for meals. Such course should include the entire preparation of at least one meal a day for a definite period; the meal to have a reasonable variety from day to day. The course should include in part at least the purchase of the food.

(*b*) A systematic course in sewing that shall include plain sewing, patching, mending, and darning; it must embrace the cutting and fitting of simpler garments and may include embroidery and fancy work.

(*c*) The two preceding courses may be supplemented by systematic courses and training in the general care of the house, as sweeping, dusting, and scrubbing, and the care of furniture; the care of the sick or of children; the care of flowers, chickens, etc.

B—FOR BOYS.

(*a*) A systematic course in shopwork, carpentry, mechanical drawing, lathe work, or any line developing the skillful use of tools.

(*b*) A systematic course in agriculture or gardening that shall embrace the planting, cultivation, and harvesting of a field or garden crop; or in horticulture that shall include the care and harvesting of a crop, including grafting, spraying, and pruning. It may also embrace the raising of flowers and ornamental plants, care of shrubbery, etc.

C—FOR BOYS AND GIRLS, BUSINESS COURSES.

(*a*) Credit may be given for systematic course in business training that shall embrace bookkeeping and typewriting; it may include office work, stenography, and commercial law and business forms in general.

(*b*) For work in offices or similar positions where such courses may be obtained in a business way, but without professional instruction.

Credit will be given by the superintendent for such work not to exceed one-half unit in any one year in any one line. The total credit of all outside courses must not exceed two units.

Under A credit will be given upon the recommendation of a committee of women appointed by the superintendent and approved by the board of education or its president.

Under B credit will be given in the same manner upon the recommendation of a committee of men appointed by the superintendent and approved by the board of education or its president.

Under C credit will be given in same manner as under B.

Application for such courses must be made in advance to the superintendent and the details of the proposed course fully arranged with him by the parents or guardian, or some one who may represent them. All work must be done under supervision that those in charge of the high school are satisfied is competent and thorough. The right is reserved to cancel any course that they believe is not being carried out properly.

Credit for work done in music under the instruction of a competent private teacher is meeting with favor. Many girls attempt to carry lessons in instrumental music, which require several hours of practice a day, in addition to their regular high-school studies. Few can do this, and many are thus compelled either to drop out of school that they may devote their time to music, or drop their music altogether. A child musically inclined is thus handicapped. That school officials are coming to recognize the necessity for giving credit for music taken outside of school, provided no music course is offered by the school, is shown by the many reports received at this bureau. The following report from Junction City, Kans., is typical:

There has been a growing demand among the pupils of the high school to take some form of instrumental music outside of school. To do this, they have had to either run the risk of overwork or postponing their musical training until later in life. The school authorities have arrived at the conclusion that a serious and thorough study of singing or the playing of any musical instrument is as truly a part of education as any regular school subject. Hence, one unit credit a year is granted toward graduation for music taken outside of school on the basis of the requirement of 32 credits for graduation, provided the work is taken under specified supervision.

One of the newer experiments is that of giving credit for Sunday school or church work done out of school. The following is an explanation of the plan recently adopted at Olathe, Kans.:

Requirements.—Those seeking the credit for Bible study in Sunday schools shall be regularly enrolled students of the high school. Attendance at Sunday school shall count 10 points. Lesson preparation and recitation shall count 10 points. Attendance at preaching service shall count 10 points. (Record of these shall be kept by the Sunday schools.) Examination at the close of each high-school semester given by the high-school authorities shall count 70 points. Certificates of attendance and study must be made for each pupil seeking credit by the Sunday school superintendent to the city superintendent of schools before the semester examination shall be given. No person who has not at least a credit of 90 per cent Sunday school attendance shall be permitted to take the examination.

Examination and credit.—The examination shall be nonsectarian. The questions shall be upon the International Sunday School Lessons, and shall be made out by a committee of representatives of the various Sunday schools giving the credit work, in connection with the high-school authorities. At least two Sunday schools must have representatives present at the time of making out the questions.

The attendance record, study and recitation record, together with the semester examination must make at least 75 per cent, which shall be entered upon the records of the Olathe high school each year as a credit equal to one-fourth year's work in any elective in the high-school courses. Sunday school work following these requirements through the four years of the high-school course will take the place of and receive the credit for any elective for one year, or in other words will constitute 1 of the 16 units necessary for graduation from the Olathe high schools.

At Falls City, Nebr., arrangements have been made so that pupils in the high school may take up Bible study privately or under the supervision of any one of the teachers of the city without regard to creed. Any version of the Bible may be used—the Douay, the King James, or the revised version. At present 30 pupils are enrolled in the course, for which one full credit is allowed each semester.

VOCATIONAL SUBJECTS.

As yet, the smaller cities have done little to introduce practical or vocational courses except in those cities where special aid is given to schools for maintaining such courses.[1] Of 1,330 of these cities replying to a questionnaire, 753 report courses in industrial training, often meaning nothing more than regular manual training courses. There are healthful indications, however, that within the next few years the smaller cities will, with funds provided by the State and National Governments, forge ahead with well-defined vocational courses.[2]

AGRICULTURE.

One of the vocational subjects that is beginning to receive attention in the small city school is agriculture. During the past year 351 cities have introduced agricultural courses or have extended the work.

[1] For a list of cities having household arts instruction, see Andrews, Education for the Home, Pt. IV, Bulletin of the Bureau of Education, 1914, No. 39.

[2] See also ch. 11, Vocational education, p. 239.

Many have introduced not only theoretical courses, but also practical demonstration courses. The following are typical illustrations:

Hannibal, Mo.—One year is devoted to agriculture, there being double daily periods. The laboratory or demonstration part of the course is given in connection with all topics.

Aberdeen, S. Dak.—Agriculture and gardening work have been introduced into the schools of Aberdeen, S. Dak. During the year 165 private gardens and 3 public gardens were conducted under the supervision of the school. Two courses in agriculture were offered, one in agronomy and one in animal husbandry. The board of education has secured 40 acres in the edge of the city, which is being prepared for the agronomy classes.

York, Nebr.—The course in agriculture covers a period of five years. The school board owns a farm of 9 acres, 4 acres being devoted to rotation and fertilizer experiments, and the rest to a school museum and demonstration work.

Boise, Idaho.—Four years' work is offered in agriculture, consisting of the following courses: First, farm crops; second, farm soils; third, farm mechanics; fourth, horticulture; fifth, farm animals; sixth, farm chemistry. The work is made practical from every standpoint. The school rents a farm, owns a team and farm implements, and has for two years cultivated the infield of the State fair grounds. The board rents a 12-acre commercial orchard, which the pupils spray and prune. Pupils also plant, spray, and prune many other orchards in the community, and make frequent excursions to ranches where live stock is kept, that they may study the various types and breeds of farm animals. Some time is devoted to judging various classes of horses, beef cattle, dairy cows, sheep, and hogs. The work in agriculture is under the supervision of an expert employed by the business men and the school board of Boise to assist the farmers of the county.

SHORT-TERM COURSES.

One item of progress that should not be omitted in a survey of conditions in the smaller cities is the introduction of short-term courses for adults. The following are typical of such courses:

Sauk Rapids, Minn.—An agricultural short course is maintained for 10 weeks during the winter months for the benefit of farmers and others who wish to become acquainted with the rudiments of the subject.

Jackson, Miss.—A short course of 10 weeks in domestic science and household chemistry is maintained for the benefit of young women and matrons.

Grafton, N. Dak.—A short course of 8 weeks is provided the young people on the farm in agriculture, domestic art, manual training and commercial subjects.

Sterling, Colo.—During the winter months the school board of Sterling offers a short course for farmers and farmers' wives or others who are interested in blacksmithery, carpentry, gasoline engines, farm accounts, dressmaking, cooking, household managing, etc. These courses are taught by practical people chosen from among the most successful in the community. During the term 1912–13 the registration reached over 100. The people of the community are encouraged to bring their problems to the school and to work on them there; when they reach a point where they need assistance, the person in charge of the course helps as the case may demand.

INTERESTING THE COMMUNITY.

Schoolmen have become conscious of the fact that, if the schools are to make progress, the people must be kept informed of school conditions and of the needs of the schools and that their cooperation

must be secured. Experience has shown that a superintendent can not advance his schools any further than public opinion will permit. As a consequence, many superintendents in the smaller cities are using every means possible to keep the people informed in regard to educational progress throughout the country. Any survey of educational progress in those cities that omits a discussion of methods in use for arousing community interest in the schools would omit one of the great factors that determine progress. Superintendents are beginning to identify themselves with the commercial clubs in their respective cities in order to come in touch with the business men of the communities. At Winston-Salem, N. C., the board of trade became so interested in the schools that it organized a juvenile department composed of high-school boys. This work of the business men has helped to focus attention upon the work of the schools, and the practical character of the work done has appealed to those citizens who felt that the schools were educating the boys away from community life rather than toward it.[1]

The superintendent of schools at Kearney, N. J., has had the support of the business men of that city because he asked them to help him. The manufacturers and corporations were criticizing the school product. In order to get at the root of the matter, he sent a questionnaire to each firm, inviting a full statement on the following points:

> In what respect do you find the pupils employed by you to be deficient?
> State fully and frankly the weakness of the public-school product.
> What suggestions can you give to help us in our work of preparing the children for your business?

According to reports received at this bureau, many helpful suggestions were made. Considerable interest was manifested by various business men who are now speaking with approval of the work of the schools.

One significant factor in securing the cooperation of the community is frank publicity. School boards that are managing the schools ably and honestly do not fear to turn on the searchlight, and the sentiment is growing among school boards that the public should know how its money is expended. In the most progressive schools, the board and the superintendent are presenting facts to the people either in printed reports, in newspaper articles, or by both. As yet, printed reports are not common among cities under 25,000. Since 1911, only 250 of these cities have sent printed reports to this bureau, although it has made frequent requests for them.

Many superintendents do not publish school reports in pamphlet form because of the expense, because the facts can be presented

[1] For an account of this plan see U. S. Bureau of Education Bulletin, 1913, No. 31, or Senate Document No. 188.

through the newspapers, and because formidable looking reports are often cast aside. Some schoolmen, however, object to using the newspapers on the ground that they are thereby "advertising" themselves. A superintendent who was complaining about lack of interest among the parents in the schools of his city was asked whether he reported the progress of the schools through the local papers. He replied that he did not believe in advertising himself. He failed to grasp the idea that school news is not for the purpose of boosting a superintendent, but to call attention to the needs of the work of the school so that it may become more efficient. In several cities, as Fredonia, Kans., there is an educational issue of the local paper. In some other cities there are daily school news notes. On the whole, the public is becoming better informed regarding the schools than it was a few years ago. The tendency is toward greater publicity by means of printed reports and newspaper articles.

That the schools can work to advantage through women's civic improvement clubs and through parent-teacher associations has been thoroughly demonstrated in many of the smaller cities. Such clubs are often instrumental in the introduction of kindergartens, manual training, and domestic science. The superintendent of one school utilized the women's clubs of the city by asking that each club give some consideration to the question, What can be done to improve the efficiency of your schools? Each club discussed the question and sent a representative to present to the teachers the ideas of the club. In the opinion of the superintendent of schools in that city, the plan aroused interest among the women of the city in better schools.

A monthly mimeographed letter addressed to parents is one of the features of the schools of Shenandoah, Iowa. In these letters the superintendent discusses, among other things, the necessity of punctuality, regular attendance, and methods of preventing diseases among school children. Other methods reported for arousing interest in school work (already described), include credits for home work, school exhibits, visitors' days, and the use of the school building as a social center.

WIDER USE OF THE SCHOOL PLANT.

Social and civic centers.[1]—The wider use of the school plant has not been confined to the larger cities. Of 1,334 of the cities of 30,000 population and less reporting to the Bureau of Education, 503 use the school buildings for other than school purposes; 171 report that the school buildings are used as polling places. Of the 71 cities of all sizes reporting to the Russell Sage Foundation that

[1] See also chapter 21, p. 455, of this report.

they employ some paid workers in carrying on evening activities other than those of the regular night school, 24 are in cities of 25,000 population and less.

Many more of the cities under 25,000 could open their school buildings for social center purposes. Statistics at hand show that of 1,334 of these cities reporting, 314 have auditoriums in at least one grade building and 888 have auditoriums in the high-school building, while 95 of the grade buildings and 450 of the high-school buildings have gymnasiums.

VACATION SCHOOLS.

In many of the smaller cities the school buildings no longer stand idle three months during the summer vacation. No statistics are available showing how many of these cities conduct summer schools, but during the past year there has been an increase of 147. There are two types of vacation schools: One aims to educate through play and to keep the children off the street; the other to help children who have lost time or who are capable of gaining a grade. These schools are usually in session from four to eight weeks. The following are extracts from a few of the many letters received at the Bureau of Education regarding vacation schools:

Carlisle, Pa.—The summer school is for high-school students who have failed. The term is from June 30 to August 22; had a total enrollment of 30 students at the end of the term; 16 passed their examinations. The term for 1914 had an enrollment of 26; of this number 23 were promoted.

Bloomfield, N. J.—The vacation school is in the foreign section of the city, with no play grounds near, and the children have nothing to do but run and play in dirty streets. The school was organized to assist them in passing a profitable vacation. The girls were taught to sew; the boys were given useful work in woodworking; the smaller children were given kindergarten training, and all were given much practice in oral English, something needed by these people.

Mount Pleasant, Pa.—The discipline in the summer school was perfect, without effort; retarded children made remarkable progress on short-time instruction hours; attendance was regular without the services of an attendance officer.

Montclair, N. J.—The number taking examinations at the close of the term was 142; of this number 90, or 64.8 per cent, were promoted. This reports merely the educational side of the work; the results from the three play centers can not be measured by figures.

EVENING SCHOOLS.

In many of the smaller cities, school boards have opened the school buildings for evening schools, most of which are supported from public funds. During the year evening schools have been established or evening school work extended in 170 cities. Although no proof is necessary to show the value of such schools, the following examples are typical of what the opening of the school buildings for evening schools can do for young men and young women:

Nearly all the evening school pupils at Spartanburg, S. C., are mill operatives. Many of them are illiterate and are taught to read and write. One 17-year-old boy who had finished the sixth grade in the day school was employed as lineman on an interurban trolley line and attended the evening school where he learned something of the rules of mensuration which he used in his work of cutting cables for guy wires to steady the poles and for getting the exact length of trolley wires on curves. His wages were increased 50 per cent before the evening school closed.

The evening school at Morris, Ill., has increased the earning capacity of many of the pupils enrolled. A clerk was advanced to the position of bookkeeper, a young man was given employment as typist in a law office, a young woman was employed as stenographer in a shoe company's office, another was employed as typist for a public library, and three entered business colleges with advanced standing.

The evening school of Peabody, Mass., is composed almost entirely of non-English-speaking foreigners who have acquired after several terms a fair working knowledge of English.

Although progress has been made in extending the use of school buildings for evening classes, many school reports lament the fact that the attendance at evening schools is irregular and that half the students drop out before the close of the term. In some instances it has been discovered that the courses are not suited to the class of students. The method now followed in most schools in planning evening courses is to discover what the people want before a course is advertised.[1]

SPECIAL SCHOOLS AND CLASSES.

As yet the smaller city schools have not seriously attacked the problem of caring for the feeble-minded and seriously backward children. In answer to a questionnaire submitted in 1913 by Dr. J. E. W. Wallin, then of the University of Pittsburgh, only 28 of the smaller cities reported such schools, 11 of these being in New Jersey, where children three years behind grade must be placed in a special class; 24 of these cities give a special examination before admitting pupils to classes for backward children; 5 require a medical, psychological, and educational examination; 9 a medical or psychological; 3 a psychological or educational; and 6 a psychological examination. Dr. Wallin finds that the preparation of the teachers for these schools has been gained mostly in special summer courses; that 21 cities use the Binet tests and that only one of these maintains a child study laboratory or psychological clinic. Of the cities of 25,000 population and less reporting to Dr. Wallin, 34 have ungraded classes. The average number of pupils to each class is 15. In 10 of these cities the classes are wholly ungraded, while the others are for backward and truant children and for special help classes. Dr. Wallin concludes:

That the classes for the feeble-minded are relatively more numerous in cities above 25,000, while the ungraded classes are relatively more numerous in cities below 25,000.

[1] For further details of evening school work, especially for foreigners, see chapter 20, "Education of Immigrants," p. 425.

This is probably not due to the fact that there are relatively more feeble-minded and seriously backward pupils in the larger cities, but to the fact that the smaller cities have not yet become thoroughly alive to administrative educational problems affecting these children. The alleged explanation that there are not enough seriously defective children in the smaller cities, say conservatively in cities of 10,000 and over, to make up a class is without foundation.[1]

There are different plans in operation to help retarded children up to grade or to make them more efficient. In a few cities, the overage children are given about half time in the shops and the other half in the regular classroom or in a classroom under a special teacher. Other cities employ one or more special teachers to help forward children who for one reason or another have fallen behind their classes. The following plan in operation at Franklin, Mass., is one of the common methods:

One teacher works among grades from one to four, inclusive, while the other works in grades five to eight. These teachers visit the different buildings on stated days, having regular schedules for their work in the different buildings. The regular teachers select those pupils who are backward because of absence on account of sickness or otherwise, those who are slow to grasp principles, or weak in any particular subject, and send them to the special teacher for individual instruction. Each regular teacher is careful to state explicitly the real difficulty of the pupil, so that the special teacher may lose no time in finding the weakness and thereby is able to help at once the pupil in his difficulty.

The special teacher keeps an exact record of the number of pupils helped, the difficulty to be overcome, the number of times the pupil is sent, the progress made, and the results. The regular teacher also keeps a record of those sent and the results.

The superintendent reports:

From the records at hand a great saving of time and strength to the regular teachers has been accomplished; a large number of pupils have been kept up to grade, and will be promoted. Otherwise, many of these pupils would have failed of promotion, which means double cost of instruction for these same pupils.

HEALTH OF THE CHILD.

A problem still to be solved by the smaller cities is that of health inspection. Of 1,300 of those reporting, only 516 have medical inspection, more than half of these being in those few States making medical inspection compulsory. Of these 516 cities, only 86 employ a school nurse and only 12 a physician for the entire time. There can be no doubt that medical inspection in many of the smaller cities and towns is perfunctory, even in those States where such inspection is compulsory. Many school boards decline to employ a medical inspector on the ground that an examination by a physician paid only a few hundred dollars a year would be superficial. In a few of these cities inspection is made free by the physicians acting in cooperation. Jeannette, Pa., a city of about 10,000 population, was one

[1] Mental Health of the Child, ch. 18.

of the first cities to introduce medical inspection of this type. The superintendent of the Jeannette schools says of the operation of this plan:

In this community medical inspection is conducted practically without expense to the taxpayers. The school board has, however, equipped a room with everything necessary for the examination and the work was begun five years ago. The people of the community were assured that the work would be suggestive merely, and they were asked to cooperate. All the children were examined; they received cards indicating defects; and their parents were advised to see the family physician or dentist, as the case might be. Free clinics were offered for those who did not feel financially able to have the work done. No nurse has ever been employed, but the teachers were asked to follow up the work as much as possible and to report to the superintendent the results noted. Many children had operations of a minor nature performed, and there was a decided improvement in the care of the teeth and general personal appearance.

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The cost of the necessary equipment for this plan does not exceed $150. As there is no other expense attached to the examination, any small town can do the work. Our experience has shown that as a result of the free medical inspection the children are cleaner and neater in appearance; incipient cases of tuberculosis are discovered in time to be successfully treated; trouble with adenoids is detected in many cases; defective eyes are helped before it is too late; a bad heart found in time to save. These and many other instances have convinced Jeannette that medical inspection is very much worth while.

From a recent questionnaire it is ascertained that there has been a rapid increase in the cities requiring medical inspection. The consensus of opinion among schoolmen in the smaller cities is that such inspection will not be made to yield its best results until school boards are enabled to employ a physician who can devote practically all his time to the school and that a school nurse is absolutely essential to secure the best results; and that in a small city a school nurse is probably more effective than a medical examiner alone.

OPEN-AIR SCHOOLS.

The number of small cities that have established open-air schools is worthy of note, considering that the first open-air school in this country was opened only seven years ago, and that in 1910 there were only 10 such schools in the United States. To-day there are open-air schools in 130 cities, 40 being in the group of cities of 25,000 and less population. Some of these, however, have only open-air kindergartens, while others have open-air rooms for anemic and tuberculous children. Some few cities have introduced the cold-room idea. This plan has been tried at Middletown, Conn., with 1,200 pupils. Reports from that city say that the pupils have improved physically and that the teachers are not so exhausted at the close of school.

That the health of the pupils in the schools at Alameda, Cal., may be conserved, the school buildings are constructed on the convertible

plan, so that in favorable weather all the rooms may be conducted as open-air classes. These classes are part of the regular school system and are for children without regard to their physical condition.

JANITORS.

It is undoubtedly true that not enough attention is given by school boards in the smaller cities to the employment and supervision of janitors. The health of school children, both physical and moral, depends in no small degree upon the janitor. Of 1,350 cities reporting, only 56 examine janitors on methods of sanitation. As far as can be learned, these examinations are in many instances superficial. In 476 of these cities janitors are permitted to employ their own help out of a salary made large enough to permit them to do this. In many instances this plan has been unsuccessful, since janitors are likely to employ help cheaply, without regard to efficiency. From reports received at this bureau it is evident that more attention is being given to the employment and supervision of janitors in the smaller cities. In several places janitors' meetings under the direction of the superintendent have proved helpful. The tendency is to place janitors under the direct supervision of the superintendent or principal of the building. In 641 of the 1,350 cities reporting, janitors are under the direct supervision of the superintendent or one of his assistants, while in the others they are under the direct supervision of the board.

PLAYGROUNDS.

Play has come to be recognized as one of the best means of preserving a child's health, yet the schools have been rather slow to provide sufficient play space for children. In 496 cities the average size of ground surrounding the school buildings is less than one-half acre; in 355 from one-half acre to 1 acre; in 318, from 1 to 2 acres, and in only 181 are there more than 2 acres. Practically every city reporting small grounds declares that in the erection of new buildings more playground is to be provided. In addition to the school playground, a few cities have established public playgrounds under the direction of a play supervisor. In most instances, however, a supervisor is employed for only a part of the year, usually for a few weeks during vacation. The Yearbook of the Playground and Recreation Society of America reports 22 cities of 25,000 population and less with recreation work carried on through the year with at least one paid worker. During 1913 seventy cities gave the children playgrounds for the first time. Of this number 53 were in cities of 25,000 population and less.

No doubt one factor that has not been sufficiently considered in the smaller cities in the care of the health of the children is that of frequent rest and relaxation periods during school hours. Of 1,269 cities reporting, 159 have one intermission, not including the noon hour; 1,072 have two, and 40 have three; in 125 cities the noon hour is from one-fourth to one-half hour in length; in 222 from one-half to one hour; in 854 from one to one and a half hours, and in 76 from one and a half to two hours.

CLASSIFICATION AND PROMOTION.

How pupils shall be classified so that they may advance through the grades without loss of time is a question that is continually presenting itself to thoughtful superintendents. A few of the current experiments in this field in smaller city schools are given below:

Carthage, N. Y.—All those children who can not read are started on their educational journey in much the same way. Gradually they are regrouped into three divisions: The first, composed of the most mature and most capable, completes a certain amount of work in one year; the next group is given one and one-half years in which to accomplish the same amount, and the third two years. Before the close of the first year each of the three groups is likely to be divided again into the higher and lower. Therefore each pupil who enters in the fall with no knowledge of the books has before him the possibility of being in any one of six groups before the close of the first year.

There is a special teacher in the lower grades who devotes her entire time to misfits—those pupils who for some reason or other can not do all of their work to the best advantage in any of the regular groups. This teacher coaches backward pupils and helps the brilliant ones to jump to the next higher division.

A pupil who fails in one or two subjects belonging to his group, but keeps up in the other subjects is allowed to recite with a lower group in the subjects in which he is deficient, while continuing regular work in all other subjects. Similarly, brilliant pupils or pupils capable of doing a higher grade of work in some one subject or two are allowed the chance.

East Chicago, Ind.—A child is promoted at any time the teacher and supervisors feel that he would be benefited. The plan is to pass pupils if they are doing their best, even if the grades are low. Teachers and principals are requested to make a report on all special pupils, giving their school history.

Williamsburg, Va.—The superintendent says: We use the shifting group plan of grading pupils and a form of reports to parents that keep parents thoroughly informed as to the pupil's standing during the year. As each weakness of a pupil is discovered by the teacher, it becomes a matter of special consideration and study by teacher, parents, principal, and the pupil. Tentative shifts can be made at any time. The aim is to relieve the teacher of all red tape and to reduce routine to the minimum but to insist upon a constant and sympathetic study of the child—every child—but particularly every child who is in danger of falling behind his class. No percentages or grades are accepted from a teacher as excuses for promotion or demotion. If a pupil is weak, efforts are made to ascertain the exact nature of his weakness early in the term and remedy it.

One of the signs of progress is that few schools now rely entirely upon examinations as a test for promotion. In some schools exam-

inations are made to count one-half, while in others they count only one-fourth. It is now recognized that examinations are not true tests of the pupil's ability to do the next grade's work, and that a pupil should not be promoted on what he knows, but on what he can do. Of 756 superintendents in the smaller cities reporting, 669 say that they are now depending on examinations much less than formerly.

CHAPTER V.

RURAL EDUCATION.

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Contents.—Introduction—Conference for education in the South—Conference of State rural-school supervisors—Teacher training for rural schools—Rural school extension—The county unit—Rural-school legislation—Free textbooks—Agricultural education and home economics—Ideals in rural education.

INTRODUCTION.

Progress in rural education for the school year 1913–14 is seen not alone in the actual achievements of the year, but in the plans for the future, and in the advanced position taken by leading educators relative to rural education and rural-life problems.

This progress found expression in various ways. It was a "clean-up day" campaign for beautifying school buildings and grounds and for putting things in shipshape order for the opening of school in several States that now make this an annual event. In some States it was a campaign for a library in every rural school. In other States educational rallies, school fairs, and farmers' chautauquas were potent factors in arousing a desire among the people for better schools. There were doubtless more rural-school and rural-life conferences held under the auspices of State normal schools, colleges, and universities and by various other organizations during the past year than in any single year within the last five years. In all of these meetings the improvement of the rural schools and the betterment of rural life were the paramount issues for study and discussion. The daily and weekly newspapers and the weekly and monthly magazines gave more space to rural problems during the past year than for many years previous.

The attendance of rural teachers at summer sessions of colleges, universities, and normal schools during the past summer was so marked as to make for progress in rural education. At the Illinois State Normal University over 500 rural teachers were in attendance; at the Iowa State Teachers' College, 1,200; and in Ohio over 7,000 rural teachers attended summer schools in 1914. Teacher training for rural schools never received so much attention in a single year.

Interest in consolidation of rural schools has greatly increased.[1] The people are slowly but surely becoming convinced that the one-room, one-teacher rural school has, in the main, outlived its usefulness and that, wherever feasible and possible, the consolidated rural school must take its place.

A larger unit of organization for rural schools has been one of the chief topics of discussion during the year.[2] The opinion is spreading among the people that the old independent school district as the unit of taxation and administration must give way to the township or county unit.

Marked progress was made in the increased appropriations by various States as well as the Federal Government for the cause of rural education and the betterment of rural-life conditions. For example, in 1913 the maximum limit of school taxation was raised by legislative act for the rural schools of Nebraska from 25 mills to 35 mills; Mississippi increased the appropriation for her county agricultural high schools $100,000; and the Smith-Lever bill, passed by the Sixty-third Congress and approved by the President May 8, 1914, will ultimately carry over $4,500,000 annually for agricultural extension and rural welfare.

Progress in rural education is still laboriously slow, however. The average education of the American citizen in 1800, according to Dr. E. A. Ross, of the University of Wisconsin, was only 82 days. It is now 1,057 days, still less than six years. Not until the average education of the rural American has reached 12 years—education that fits for life and prepares for the duties of citizenship—can we boast of our progress in rural education.

CONFERENCE FOR EDUCATION IN THE SOUTH.

The conference for education in the South during the 17 years of its history has done some notable things for the progress of rural education in the Southern States, but the lessons it demonstrated at Louisville, Ky., in April, 1914, are of inestimable value to the entire country. The aim of this conference was to show "How to organize and build up country life." There were demonstrations of cooperative growing and marketing associations; women's clubs for household equipment and home making; boys' and girls' clubs; sanitary home, country school, country church; excursions to blue-grass farms. There were conferences of farmers, country women, country preachers, country doctors, school workers, editors, and business men.

The fundamental ideas to be gained from this conference are summed up by Dr. A. P. Bourland, its secretary:

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[1] See Bulletin of the Bureau of Education, 1914, No. 30.

[2] Ibid., No. 44.

1. The greatest social need of the century is the organization and consequent upbuilding of the rural life of America.
2. This must be the outgrowth of the self-activity of rural life forces.
3. Outside forces can only assist in this work.
4. There is a need of raising the general level of living in the country in order to keep the brightest and best people from leaving the country in too great numbers.
5. To educate the young in the schools, to elevate their ideals, to arouse their ambitions without raising the level of living and offering them a broader field for the exercise of their talents may do as much harm as good.
6. The school is only one of these agencies for community upbuilding.
7. There must be a cooperation among the rural life forces, all working together for a common end.
8. The farmer, the country woman, the country teacher, the country editor, the country doctor, the country business man, and the country preacher shall and must all join hands for a hard pull, a long pull, and a pull all together for better living along every line in the country.
9. The community is the proper unit for rural development.
10. The community must learn how to educate, to organize, and to develop itself.

CONFERENCE OF STATE RURAL SCHOOL SUPERVISORS.

The first national conference of State supervisors and inspectors of rural schools was held under the auspices of the United States Bureau of Education at Louisville, Ky., April 6–9, 1914. The conference devoted its time to a discussion of the topic "The best methods for the improvement of the rural schools through State supervision," under the following subtopics: (*a*) Through demonstration schools; (*b*) through local supervisors; (*c*) through consolidation; (*d*) through standardization; (*e*) through preparation of rural teachers; (*f*) through improvement of teachers in service; (*g*) through community activities; (*h*) through county industrial supervisors.

After devoting the first three days of the conference to a thorough discussion of these topics, committees were appointed to bring in reports embodying a consensus of the opinion of the conference on each question. The fourth day was devoted to a discussion of the reports, a summary of which follows:

Demonstration schools.—We recognize in the demonstration school or school for special demonstration purposes a splendid way of showing the people in a definite and concrete way what a school can do for a community.

Local supervision.—There should be a much closer local supervision of the school than has hitherto existed in the majority of the States. There should be in each county, township, or parish, as a minimum supervisory force, a superintendent of schools, and under his direction, a supervisor of schools, a director of agricultural education, a director of education in household science and arts, and an office clerk.

Consolidation.—We indorse the consolidated school as one of the greatest single factors in rural school improvement.

Standardization.—As fundamental principles of standardization we recommend the following, viz, (1) minimum material equipment; (2) minimum qualification for teachers, including or looking toward a degree of physical training; (3) closer and

abler rural school supervision; (4) compulsory education, or a high rate of enrollment based on enumeration, and a high rate of daily attendance, based on enrollment; (5) a minimum length of school term; (6) an approved State and local course of study, and it is agreed that in the work of standardization we can not get beyond requirements for material features until schools are adequately supervised by State supervisors of rural schools.

Preparation of rural teachers.—The new farm school calls for a new kind of teacher, professionally prepared, who shall understand the difficult problems of present-age life and shall have the right vision of this life and be willing to live it in the midst of the country community.

Such teachers should (1) be community leaders, (2) be masters of the subject matter taught, and (3) strong in modern rural school organization and administration.

We urge the State normal schools and other schools whose province it is to prepare elementary and secondary teachers to organize, as soon as practicable, distinct and complete departments for the preparation of rural teachers. We further urge such agricultural colleges as do not now offer professional preparation in agricultural education to add a professional staff to their faculty, to the end that the future agricultural teachers in our farm schools may have a pedagogical as well as a technical foundation for successful work; and, finally, we urge the importance of establishing schools or departments of schools in which country-life leaders and agricultural experts of every kind may be prepared for their important work.

Training the untrained teachers now at work in country schools.—The following have been found successful in training the rural teachers at work:

1. The county supervising teacher: The county supervising teacher visits the school of the novice at the beginning of the session, helps her organize her school, classify her pupils, make her daily program, and demonstrates correct methods of teaching, especially with the beginners.

2. The demonstration school: Every county should have several country schools under the charge of especially efficient, experienced teachers. The untrained beginners should be given an opportunity to visit these schools and observe the work.

3. The teacher's manual: The teacher's manual should not be merely an outline of the course of study. It should constitute an elementary pedagogy of the country school and should offer concrete suggestions adapted to the particular needs of the State for which it is designed.

4. The county institute: The short-term county institute, held just previous to the opening of the school year, gives the county superintendent and supervising teacher an opportunity to correct many of the mistakes which would otherwise be made by untrained teachers.

5. The county teachers' association: The programs of the county teachers' associations should deal with the practical workings of the schoolroom. These programs should frequently include model lessons, followed by free discussion.

6. The teachers' reading circle: The teachers' reading circle offers to the young teacher an opportunity of enlarging and organizing her experience.

7. The summer school for teachers: Thousands of teachers have, through summer schools, been given an opportunity to study educational principles and practices.

Community activities.—From the standpoint of the pupils, the school should have courses in agriculture, domestic science, and manual training; public debates and amateur plays, school exhibits and fairs, and organized play, including county field days. The school should encourage the organization and direct the work of corn and canning clubs.

From the standpoint of the adults, the schoolhouse, should be open at least one evening each week for lyceums, free lectures, discussions of civic and economic questions, and for social and recreational gatherings. In order to carry out the pro-

gram, there should be organized in each school a community club consisting of all the adults of the community. This organization should adopt a constitution, elect officers, hold regular meetings, and outline each year a program of work for community improvement.

Improvement of rural schools through county industrial supervisors.—We recognize the necessity of making the rural schools more useful in building up a better rural civilization, and we recognize the fact that the limitations of the average country school are such that the teacher can hardly break away from the traditional character of work without personal aid and demonstration from outside sources.

1. We therefore indorse the work of the county industrial supervisor in introducing the arts pertaining to home making, cooking, sanitation, and farm life into the rural schools.

2. We recommend that such a supervising industrial teacher be employed for the entire year.

3. We recommend that club work, such as the organization of boys' and girls' clubs, and demonstration in the growing and canning of fruit and vegetables, be a part of the work of this teacher; and that such a teacher should promote citizens' leagues to organize and improve the social life of the community, as well as to assist in improving school facilities.

4. We recommend that this teacher be employed by the county school authorities, and work under the direction of the county superintendent.

5. We recommend that the State supervisor cooperate with the county superintendent and assist in planning and directing this work.

6. We indorse the work of the Jeanes fund in cooperating with the county superintendents in employing supervising industrial teachers for the negro rural schools of the South.

7. We indorse all philanthropic efforts to supply State and county supervision looking toward the betterment of the rural schools, but we believe that eventually all such supervisory work should become a part of the public-school system.

TEACHER TRAINING FOR RURAL SCHOOLS.

I. *First national conference.*—At the first national conference on teacher training for rural schools in Chicago, September 24–26, called by the United States Commissioner of Education at the request of several of the State departments of education, the following resolutions were adopted:

Whereas an investigation recently conducted by the National Bureau of Education discloses the fact that 32.7 per cent of the rural teachers now in service in the United States have had no professional preparation for their work; and in view of the accepted significance of rural education to our national life, and as the success of all rural education depends to a large extent upon the teacher: Therefore be it

Resolved, That it is the sense of this conference that all educational institutions which can readily lend themselves to such purpose be utilized to train teachers for the rural schools:

1. Universities and colleges throughout the country where consistent with practical administration, that these services be interpreted to include the establishment of high standards of rural life and education and the actual work of training for rural leadership.

2. State and private normal schools in special departments of rural education, and in the preparation of teachers for teacher-training departments in high schools and county normals.

3. State agricultural colleges in their departments of education through the right training of men and women to teach in the secondary schools such subjects as agriculture, manual training, and home economics; that the agricultural college is also doing a proper work in this direction when it is promoting the idea of vocational education in the minds of all the people—patrons, teachers, and children; that the agricultural college should be looked to as the authoritative source of agricultural knowledge; the agricultural high schools should not only have for their highest purpose the training of young people for the farm and home and in the promotion of vocational education, but they should be expected to add much professional work for effective teaching in the rural schools.

4. That the preparation of teachers for rural schools in county training schools and in teacher-training classes in high schools is approved as a policy where more extensive training is not at present feasible; and it is recommended that such training in high schools should not be given before the junior year and no diploma of graduation be granted before the twelfth school year is finished.

5. That the need for professionally trained teachers to take charge of teacher training in high schools and in county normals is very keenly felt, and hence we urge upon institutions engaged in the training of teachers the necessity for their offering suitable training for such positions.

6. That we urge upon normal schools, colleges, and universities the reasonableness and justice of admitting high-school training-class graduates with rights and privileges equal to those extended to other high-school graduates.

7. That we commend the extension work, the rural school and rural life conferences, and summer sessions of our normal schools, colleges, universities, and agricultural schools as a means for the improvement of rural teachers in service, the promotion of agricultural education, and the betterment of rural life through the home, school, and church.

8. That the training of teachers for the rural schools should be such that they will be fitted to utilize the boys' and girls' home-project work as a means of motivating the industrial, social, and educational life of the school, the home, and the community.

9. That the use of the public schoolhouse as a civic center should be correlated with its use for children's instruction in both country and town. * * * We recommend that when the public schoolhouse becomes the polling place and civic forum of the community the school principal, or other responsible employee of the school board associated with the school principal, be authorized to serve as the civic secretary of the community and made responsible for the systematic organization and direction of all of the uses of the public-school property. We further recommend that the administrative organization necessary for the systematic development of the use of the public-school buildings and grounds as civic, social, and recreation centers be incorporated with and made a part of the work of the departments of public-school administration in city, county, and State.

10. * * * That we request the Commissioner of Education to call this conference in annual session from year to year as a clearing house for information to guide us in a nation-wide campaign now begun, which we pledge ourselves to continue through the best agencies possible until there shall be a sufficient number of properly trained teachers for the rural schools of the United States.

The conference was unanimous also in making the plea of J. Sterling Morton for professionally trained teachers the platform on which to wage a national campaign for professionally trained teachers for the rural schools of the United States:

We demand professionally trained teachers, men and women of irreproachable character and well-tested abilities. We demand from our legislature laws raising the standard of the profession and exalting the office of the teacher. As the doctor of medicine or the practitioner at law is only admitted within the pale of his calling upon the production of his parchment or certificates, so the applicant for the position of instructor in our primary and other schools should be required by law to first produce his diploma, his authority to teach, from the normal schools.

We call no uneducated quack or charlatan to perform surgery upon the bodies of our children, lest they may be deformed, crippled, and maimed physically all their lives. Let us take equal care that we intrust the development of the mental faculties to skilled instructors of magnanimous character that the mentalities of our children may not be mutilated, deformed, and crippled, to halt and limp through all the centuries of their never-ending lives. The deformed body will die, and be forever put out of sight under the ground, but a mind made monstrous by bad teaching dies not, but stalks forever among the ages, an immortal mockery of the divine image.

II. *In public high schools.*—Teacher training in public high schools was not only indorsed by the two conferences already mentioned, but also by the Southern Education Association and the Conference for Education in the South at Louisville, Ky., in April, 1914.

It was the consensus of opinion among those at the conferences most deeply interested in the problem of the rural teacher that teacher training in public high schools is one of the most effective, economic, and popular agencies available. Maryland and Ohio established teacher training in their public high schools by legislative act in 1914; Arkansas, Georgia, North Carolina, and Virginia are the Southern States that had already taken up the work. In the New England States, Vermont is leading in teacher training in her high schools; Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, and Wisconsin are the States of the Central West that have had teacher training in their public high schools for some years. As other States are now seriously considering this policy as a means of providing professionally trained teachers for the rural schools, it seems fitting to review this subject at this time.

Teacher training in high schools is not a new thing; it was established by legislative act in New York State as long ago as 1827, or 12 years before the establishment of the first State normal school in America at Lexington, Mass., and in the last 25 years New York has appropriated $100,000 annually for this work. Practically all the laws on this subject in other States have been patterned after the New York act. In all of the States making a success of this work, it has been found necessary to have State aid for its support. The appropriation in such States is from $50,000 to $100,000 annually.

Those who are opposed to teacher training in high schools usually base their argument upon the theory that it will lower the standard of scholarship and professional training, and that high-school pupils are not sufficiently mature to profit by a study of pedagogy. Yet in practice, according to President D. W. Hayes, of the State Normal

School, Peru, Nebr.,[1] it would seem that about 50 per cent of the State normal-school men of the United States are of the opinion that a standard of four years' work beyond the eighth grade is too high a minimum requirement in the preparation of teachers for the rural schools by the State normal schools at the present time. On this point President Hayes said:

It is a well-known fact that the ideal course advocated by the normal schools for the elementary teacher in the grades is four years beyond the completion of the twelfth-grade high school. Yet only about one-half of the normal schools reporting seem to feel that it is practicable to require the equivalent of a high-school course to fit one to teach in the country. It seems to me that the position of the normal school should be either to lower our standards of ideals for the requirements of the elementary teacher in the graded schools, or else to raise our ideal of the qualifications to be required of the teacher of the rural school. The following represents the situation to-day: A teacher is considered qualified to teach a boy in the country school if she has, on an average, completed two years beyond the eighth grade. But she is not good enough to teach the same boy if he happens to be attending school in the grades in a city school, unless she has had six years' preparation beyond the eighth grade. Again, the teacher whom we recognize as qualified to teach the eighth-grade boy in the country, if she has completed two years' work beyond the eighth grade, is not considered qualified to teach this same boy in the ninth grade in the city unless she has had eight years' preparation beyond the elementary schools. This is one of the greatest inconsistencies of which the normal-school men, college men, and other educators, are guilty to-day.

As further indication of the theory and practice of State normal-school men in the preparation of teachers for the rural schools, the following statement is taken from a paper, "The work of the normal schools in the training of teachers for the rural schools," read by President David Felmley, of the Illinois State Normal University, before the first national conference on teacher training for rural schools at Chicago in September, 1914:

It is probably true that up to the close of the last century the notion generally prevailed that country-school teachers do not need a specific training different from that given to city teachers. In fact, in the older normal schools, the idea usually prevailed that, if the teachers were properly instructed in the principles of education and in methods of instruction in the various subjects, he could adapt himself to any situation in which he might find himself. Primary teachers, grammar-grade teachers, country-school teachers, and even prospective high-school teachers all went into the same hopper. Of late years we have come to recognize that the field of education is too vast for any one to master all its details and that the normal-school course should contain a great deal of the details of subject matter and instruction in the particular grade or special field in which the teacher is to work. Thus we have, in the normal school at Normal, at present, 16 different programs of study arranged for teachers of different preparation or for the different destinations which they propose to reach. We have come to recognize that the country school presents its own peculiar problems of organization and management and in the material of its course of study. Accordingly, we established, with the advent of Miss Mabel Carney into our faculty, a dis-

[1] "What the normal schools can do and ought to do with the training of teachers for rural communities," a paper read before the normal department of the National Education Association at Salt Lake City, 1913.

tinct country-school department with two programs of study, a program two years in length for graduates of the eighth grade, who are not less than 16 years of age when they enter the normal school, and a second program one year in length for students who have had at least two years of high-school work before entering the normal school. These students are taught in all subjects in separate classes, and the teacher in every class arranges his work, his material, and illustrations with special reference to country-school conditions.

President John W. Cook, of the Northern Illinois State Normal School, in the report of his survey, made in November, 1914, of the State normal schools of Alabama, strongly recommended to the presidents, faculties, and boards of trustees of these schools that courses in pedagogy for rural teachers should be administered with the idea that many of their students will leave the normal schools to become teachers even at the end of the freshman year and each year thereafter in greater numbers than will graduate in the senior year. He urged such a policy not only for the sake of these immature teachers and the children that would come under their instruction, but for the reputation of the normal schools as well; that these institutions would become known among the people by the success or failure of those who would leave the normal schools at the end of the freshman year even more than by the record made in the schools by their senior graduates. One of the features of these courses, he said, should be the State course of study prescribed for the rural schools; this should be gone over with the thought that the students are to teach the subjects of this course, and they should be thoroughly drilled in details of the subject matter and the method of presentation; that the effectiveness of the prescribed work in pedagogy will depend on the manner in which it shall be outlined and organized; that the criticism ordinarily to be made upon work described as pedagogical is that it lacks very greatly definiteness and simplicity; it usually overshoots the pupils, or requires on their part a modification and adaptation necessary to make it of practical value; that it is idle to talk about a profession of teaching if such a term is to indicate more than 10 per cent of those now engaged as teachers in our public schools. President Cook's perpetual injunction to teachers of pedagogy in the ordinary work of State normal schools is *simplicity, simplicity, simplicity.*

Those who favor teacher-training courses in public high schools make the minimum requirement the same as that stated in resolution 4 of the First National Conference on Teacher Training for Rural Schools,[1] namely, the completion of a four-year high-school course of study above the eighth grade, with the junior and senior years modified by a review of the common branches and at least one semester in pedagogy, school organization, and school management, with

[1] See p. 164.

some observation and practice work. If Presidents Hayes, Felmley, and Cook correctly represent the normal-school men of the country in the minimum requirements of the State normal schools in the preparation of teachers for rural schools, it is evident that teacher training in high schools is not a lowering of the standard of scholarship or of professional training, but in fact a raising of the standard in all States giving teacher training in high schools of at least one year and, in many States, a raising of the standard of from two to three years.

According to the report of the board of trustees of the State normal schools of Alabama to the legislature January, 1915,[1] 80 per cent of the teachers of that State have never attended a normal school even for a day. Yet this State has four A-class State normal schools and two B-class State normal schools. The number of new white teachers needed in the schools of this State each year is at least 1,500, and of this number 1,200 begin teaching with no professional training of any kind. In the light of these conditions, this same report comes out strongly in its recommendation to the legislature for teacher training in the public high schools of Alabama.

In the amount of money appropriated for teacher training, the number of public high schools recognized for this work, and the number of persons pursuing teacher-training courses during the past year Nebraska offers an instance of actual progress in the preparation of teachers for the rural schools. There are now 176 public high schools and six academies giving normal training in this State. The enrollment of students in this work during 1913–14 was 3,850 in the junior and senior years of four-year high-school courses above the eighth grade. The 1913 session of the Nebraska Legislature increased the appropriation for teacher training in its high schools from $100,000 to $125,000 for the biennium.

State Supt. James E. Delzell, in his biennial report to the State legislature dated January 7, 1915, has the following to say in favor of normal training in high schools in Nebraska:

> At the last session of our legislature the value of this work to the State and its bearing upon the development of the highest type of citizenship through education was fully discussed, after which the appropriation was increased from $100,000 to $125,000, thus indicating the views of men who give careful attention to the real needs of the people.
>
> No other appropriation of an equal amount has done so much for the betterment of the rural schools.
>
> The interest in and the enthusiasm for the work so general throughout the State comes from the real test as shown by the results already attained even in the short time that normal training has been operative. Our normal schools, filled to their capacity, are yet unable to supply a sufficient number of teachers for the grades of the city and town schools. This leaves the high school our greatest source of supply for teachers for rural schools. Our rural schools must continue to be supplied with teachers, very largely, by the high schools.

[1] P. 39; see also report of the State superintendent for 1914, p. 15.

The progress made in teacher training for rural schools in the high schools of Kansas during the past year rivals that of Nebraska. For the school year 1912–13, 189 high schools and academies located in 92 different counties of the State offered teacher-training work and had an enrollment in the teacher-training classes of 2,500 junior, senior, and postgraduate students. For the school year 1913–14 there were 195 high schools and academies approved for teacher training for rural schools, with 3,500 junior, senior, and postgraduate students in their teacher-training classes.

The progress made in the work of the teacher-training classes in the high schools of Iowa, Michigan, Minnesota, and Wisconsin was greater during the school year 1913–14 than during any previous year. Minnesota signalized this work by calling Miss Mabel Carney from the head of the country school department of the Illinois State Normal University to the position of State supervisor of teacher-training departments in public high schools. Missouri did not begin this work until 1913, but it has been a success there from its inauguration.

Nevada has no regular State normal schools, but there is a normal department for the training of teachers in the State university, at Reno. The population is scattered, however; the great distance to be traveled makes attendance at the university almost impossible for those who live in the remote sections; and a system of teacher training in connection with county high schools is successfully carried on. The State furnishes the money to pay the salary of the normal training teacher—from $1,500 to $1,800 annually—the county high-school board supplies room and furniture, and the county commissioners furnish other necessary equipment from a special county levy made for the purpose. The State board of education selects the teachers, and those in service have high qualifications. There must be at least five students desirous of taking the course, who shall be either graduates of a four-year high-school course or shall hold an elementary school certificate to teach in the State. The county high school board must apply to the State board of education, and show willingness and ability to furnish proper surroundings and comply with other requirements before consent is given for the formation of a county normal class.

It is worth noting that some men who, as presidents of State normal schools, were not enthusiastic over teacher training in high schools, later as State superintendents, with the responsibility of supplying their rural schools with properly qualified teachers, have become ardent advocates of this policy in the training of teachers for rural schools. Experience has shown that this policy has increased the attendance at State normal schools, giving these institutions students of college rank rather than pupils of high-school grade, and has

actually brought about in some States the establishment of more public normal schools. President John Kirk, speaking for Missouri, says that for a short time following the establishment of teacher-training classes in high schools the attendance of pupils of high-school grade has decreased at one or two State normal schools, but he confidently predicts that ultimately the attendance will be increased at such schools. This increased attendance, President Kirk declares, will be of college rank, rather than of high-school grade.

State Supt. C. P. Cary is authority for the statement that some principals of county normals in Wisconsin oppose the establishment of teacher-training courses in the high schools of that State, but he says it will not be many years before every county in Wisconsin has either a county normal school or at least one public high school with a teacher-training course, except in the counties having State normal schools.

Dr. Thomas E. Finegan, assistant commissioner of education for elementary schools in the State of New York, said at the Chicago conference that, while the teacher-training classes in over 100 high schools of New York State had for nearly a century been practically the only source for supplying the rural schools with professionally trained teachers, he was not satisfied with the qualifications of teachers thus prepared. New York has 10 State normal schools and 12 city normal schools, but rarely is a graduate from either of this class of schools found as a teacher in the rural schools of New York. It is Dr. Finegan's hope that within the next decade New York State will establish at least 10 State normal schools in rural sections of the State, whose sole purpose it will be to train teachers for the rural schools. If Dr. Finegan's hopes are realized, it will prove one of the arguments of those who favor teacher training in high schools that, in addition to its immediate service in supplying the rural schools with better teachers, it is also a factor in general rural-school progress. If this policy in the training of teachers can be as effectively used in those States that are now without it as it has been in New York and other States, it will bring progress in rural education in States that are now near the foot of the list. The advance made in rural education in those States having teacher training in their high schools is far greater than in those that have made no use of this agency.

III. *Rural-school extension in State normal schools.*—Rural-school extension is becoming an important agency by which the State normal schools may render great service in training rural teachers, in developing rural leaders, and in promoting rural welfare. Modern opinion holds that a thorough and systematic organization in rural extension work should be established in every State normal school; that each school should have a man peculiarly fitted for this work in the field practically all the time; that this agent should visit the high schools in

the territory of his institution for the purpose of interesting in the work of the State normal schools those with a natural aptness for teaching; that he should plan correspondence courses of study in those subjects in which such work can be carried on successfully; visit the graduates of his school to help them in their actual teaching; advise with patrons and school officers as to the best ways and means for the improvement of their schools; assist teachers in the proper direction of the boys' and girls' industrial clubs; and be a leader who is in deep sympathy with rural life betterment in all its phases. It is gratifying to find that many State normal schools have already realized the value of such extension work and have done things worth while during the past year in this field of service.

An excellent example of extensive and successful work in rural-school extension, as well as in the training of teachers for the rural schools, was that of the Iowa State Teachers College at Cedar Falls. By the authority of the Iowa State Board of Education there is established at the Iowa State Teachers College a department of rural teacher training. This department consists of the president, the head of the department of instruction in education, the head of the department of teacher training, three professors of rural education, all instructors of all organized departments who give instruction in any of the scholastic branches assigned to the rural teachers' course, and 10 teachers of superior grade who are in charge of the 10 rural demonstration schools which are under the direction and supervision of the State Teachers College.

The rural teachers' course consists of all the branches required by law for first-grade uniform county certificate, including such industrial branches as agriculture, home economics, manual training, and such professional subjects as elementary psychology, school management and primary methods, and country education problems. This course includes one month's continuous teaching in one of the rural demonstration schools under the supervision of a supervisor of rural education and the direction of the critic teachers regularly in charge of the rural demonstration schools who have been specially selected for their qualifications to do this work. These subordinate critics in teaching are paid $700 a year, part of the salary coming from the State.

The three professors of rural education give the instruction in education to the students in the course and hold biweekly meetings of the students to discuss country problems under the title "The Iowa Club." At this club meeting the students have a large part of the program. Only those enrolled in the club are permitted to attend. In addition, they hold monthly meetings of the citizens of each district and supervise the industrial work of every child outside of school hours.

The present graduating class consists of 50 members, and is the result of the second year's work in this special line. When the students graduate they receive a diploma entitled "The Rural Teacher Diploma," and they are granted a State certificate by the State board of education examiners entitled "The Rural State Certificate." They are privileged to teach under this authority in any school where they are able to secure employment.

For the teachers in the service of the schools, the Iowa State Teachers College has established 50 study centers for Saturday instruction. These study centers will enroll about 3,000 active teachers. The work is definitely presented in printed circulars; the teachers are required to attend meetings by the agreement that was made when the study center was organized, and they are strictly held to the assignments made for the lessons. These meetings occur at least monthly at the town where the study center is located. Members of the faculty of the college give actual instruction for three class hours at each meeting, as many instructors being supplied as the size of the study center demands to insure good class work. It is expected that smaller groups of the teachers will meet more frequently under their own organization approved by the county superintendent, in order to confer and discuss these assigned lessons. Examinations with credit will finally follow when the teachers are later enrolled at the college in summer or regular sessions.

All the expenses of instruction are paid by the teachers college out of its current funds, each instructor receiving for each day's work the same salary he or she receives for teaching the same time on the campus. The expenses of travel and of entertainment for the instructors at these study centers are paid by the counties where the centers are organized. Twenty-five thousand dollars can be used by the teachers college this year in such instruction, if there is demand for it, and other instructors not members of the teachers college faculty may be employed if their qualifications are such as to assure efficiency and acceptability. Last year 1,040 students were thus taught, and many of these came to the summer session to complete the work they had begun. It is the intention of the State board of education to extend the summer term to a full 12 weeks' session, in order to give those students enrolled in teacher study centers an opportunity to complete courses and graduate from the teachers college.

Several other State normal schools in various sections of the country have done successful extension work in rural education, as well as for the benefit of adults in various school communities. Typical examples are the Middle Tennessee State Normal School at Murfreesboro, the West Tennessee State Normal School at Memphis, and the Eastern State Normal School at Johnson City.

The Middle Tennessee State Normal School has been doing extension work through the county institutes for some time. This year, however, it has planned a little more systematic work than heretofore. The same instructor visits a county at each of its monthly teachers' meetings, and does continuous work for the whole year in the special subject assigned for this county. Definite work is prescribed at each meeting for the teachers to pursue during the month. In one county literature for the grades is studied for the entire year; in another, art in the schoolroom, with special stress placed upon the educative value of pictures; in a third, the study of the problems and difficulties peculiar to the one-room rural school; in a fourth, history for the grades; in a fifth, agriculture, with special reference to rural-life problems; in a sixth, in conjunction with the State rural-school agents, an education survey of the county is under way.

There are about a dozen counties on its list this year in which about 1,500 teachers are reached once a month. The good results of this work may be summed up as follows:

1. The normal-school men themselves have an opportunity to study educational conditions at first hand in various counties of the State, and are thereby better prepared for the work they are to do.
2. An opportunity is furnished for serving directly the teachers who may never have a chance to attend the normal school and to aid in the solution of vital school problems.
3. The influence of the school is extended beyond the limits of the campus, and it becomes an instrument of service for the whole people.
4. It helps to increase the attendance at the normal school, and thereby enlarges its usefulness.

The extension work for adults at the West Tennessee State Normal School consists of a series of meetings at country schoolhouses. Four or five instructors are sent to a school for each meeting. They present various subjects connected with the home, farm, and school life of the community. The professor of agriculture presents a varied line of subjects dealing with farm interests; the biology teacher those dealing with school sanitation and hygiene; the domestic science teacher, cooking demonstrations; and the English teacher, the subject of home reading for children and adults.

Recently President Sidney G. Gilbreath, of the East Tennessee State Normal School, sent out a list of questions to the 34 county superintendents of east Tennessee on school conditions and growth for the period beginning October 1, 1913, and ending October 1, 1914. Complete reports have been received from all the county superintendents, showing substantial progress for the period covered by the questions.

For the year covered by the report, October, 1913, to October, 1914, there were 36 one-room schoolhouses built in east Tennessee. In only 3 counties, Bledsoe, Monroe, and Morgan, was this type of house exclusively favored. All other counties that erected any new schoolhouses erected at least one or more that contained more than

one room; 54 two-room houses were erected; 17 three-room houses; and 33 houses each containing four or more rooms.

The amount spent for new buildings, for repairs, and furnishings aggregated for the period given $304,541. It is a healthy sign of progress when more two-room houses are built than one-room houses; and when nearly as many houses containing four or more rooms are erected as one-room houses.

In the matter of expenditures for schoolhouses, Greene County heads the list, reporting an expenditure of $75,000 for the year.

Nine counties voted bonds for school-building purposes to the total amount of $494,800. The nine counties voting bonds were Bradley, Campbell, Greene, Hamilton, Hawkins, Johnson, Knox, Polk, and Roane.

The reports show that 74 supervisors and demonstrators were employed in 19 of the 34 counties, 15 counties not yet employing such school agents.

All of the counties except Grainger, Hamblen, Sevier, Sullivan, Unicoi, and Union reported a high-school tax. In only one county, Washington, was the tax levy for elementary and high schools decreased; all the other counties have the same rate as the preceding year except Campbell, Claiborne, Grainger, Greene, Hancock, Hawkins, Loudon, Polk, and Roane, which show a substantial increase, the average levy for county elementary schools, including the State tax, being 46 cents on the $100, and for high schools 12 cents on the $100 for the 28 counties maintaining high schools.

The reports further showed that 428 libraries had been established or aided, the amount collected in the counties as library funds amounting to $7,845. Every county except Meigs reported library aid. In the number of libraries aided or established, Knox County easily heads the list, with 100 libraries aided at a cost of $1,500.

Of the 34 counties, 30 report attendance as much better than for the preceding year. Two, Meigs and Washington, report a smaller attendance; and two, Sevier and Bledsoe, report the same attendance as for 1913.

In respect to the efficiency of the teaching force, 28 report decided improvement, 5 report no gain, and 1 does not answer the question.

The State normal schools at Troy, Jacksonville, and Florence, Ala., each have a rural demonstration school, which is used much like the demonstration schools in connection with the State Teachers' College at Cedar Falls, Iowa, already described. Wherever feasible and possible, a normal school that attempts to prepare teachers for rural schools should have within easy transportation distance a typical rural school for observation purposes and also for the purpose of affording a practice school for its pupil teachers.

The State Normal School at Lewiston, Idaho, has made a valuable contribution toward a solution of the problem in teacher training for rural schools.[1]

The State Normal School at Monmouth, Oreg., has also done good work in teacher training for rural schools. While this institution as yet has no rural schools for practice teaching, it has two typical rural schools that are used for observation purposes. Frequent visits are made to these schools by the prospective rural teachers, under the direction of the one in charge of rural education at the normal school. That the teacher may be fitted to meet the difficulties which confront

[1] For a description of this plan, see Bull. Bu. of Ed., 1914, No. 49: Efficiency and Preparation of Rural School Teachers.

the teacher of the one-room rural school, she is given a course dealing with rural school problems.

The Western State Normal School, at Bowling Green, Ky., during the late summer and early fall of 1913 conducted a series of farmers' chautauquas in the rural communities, villages, towns, and cities of Warren County. There were four chautauquas beginning on Sunday morning and closing Wednesday evening, five one-day chautauquas, and a greater Warren County convention which closed the program for the year at Bowling Green with an old-time barbecue attended by over 5,000 people from the rural communities. Senator Robert M. La Follette was the principal speaker at the Bowling Green convention. The purpose of these chautauquas was to create better sentiment for good citizenship and to improve the moral, intellectual, and industrial life of the people. They formed a farmers' school, where all of the people—old and young, boys and girls—attended and studied the problems of the community. It is the belief of President Cherry, who inaugurated this work, that the community becomes a working organism almost entirely through the spontaneous life of the people, and that this spontaneous life depends largely upon uniform progress and equal opportunity for every citizen; that if we look the world over for an easy way to build up a great community, in the end we find that it exists in the life of the people composing the community; it grows because it has the contagion of good citizenship; because it is itself a great lesson in progressive life; because its citizens, its public sentiment, its ideal, its patriotism are aggressive, moral, and just.

The programs of each chautauqua were built upon the needs of the community. The local committees were asked to assist in selecting the subjects and the local speakers. It was frequently announced before the assembly that the entire community was on the program, and all were urged to participate in the round-table discussions. Frequently an expert, representing some department of rural uplift, would speak for 20 or 30 minutes, and then would be kept busy for more than an hour, answering questions asked by the people of the community. The program covered practically all the matters connected with the development of country life. The religious life of the community, household economy, the consolidation of small country schools, practical agriculture, corn culture, hog cholera, alfalfa, dairying, silos, the poultry business, live-stock raising, fruit growing, methods of crop cultivation, soil improvement and conservation, sanitary water supply, beautifying country homes, good roads and road building, rural hygiene and sanitary science, markets for farm products, farmers' cooperative unions, parcel posts, and many other subjects were discussed.

THE COUNTY UNIT.

The greatest interest in any one problem of rural education during the past year was manifested in the county-unit organization for the administration of rural schools. It was indorsed by the State superintendents of public instruction at a meeting held at St. Paul, Minn., in July, 1914, and by the National Education Association in general session there at the same time. The legislatures of 10 or more States have had this policy under consideration in their 1915 sessions.

The essentials of the county-unit basis of organization for the administration of rural schools have been stated as follows:[1]

1. The county as the unit of taxation and administration of schools (except that, in administration, independent city districts employing a superintendent would not be included).

2. A county-school tax levied on all taxable property in the county, covered into the county treasury, and divided between the independent city districts and the rest of the county on a basis of the school population.

3. The county-school funds, including those raised by taxation and those received from the State, expended in such a way as would as nearly as possible insure equal educational opportunities in all parts of the county, regardless of the amount raised in any particular part. (Any subdistrict should be permitted to raise, by taxation or otherwise, additional funds to supplement the county funds, provided the subdistrict desired a better school plant, additional equipment, or a more efficient teaching force than could be provided from the county funds.)

4. A county board of education, in which is vested the administration of the public schools of the county (except those in independent city districts), composed of from five to nine persons, elected or appointed from the county at large; the board to be nonpartisan; the term of office to be at least five years; and the terms arranged so that not more than one-fifth would expire in any one year.

5. A county superintendent of schools, a professional educator, selected by the county board of education, from within or without the county or State, for a long term (at least two years), who shall serve as the secretary and executive officer of the county board and as such be the recognized head of the public schools in the county (except those in independent city districts).

6. District trustees in each subdistrict of the county, one or more persons, elected by the voters of the district or selected by the county board, to be custodians of the school property and to serve in an advisory capacity to the county board. The expenditures of local funds raised by the subdistrict would rest with the trustees, subject to the approval of the county board.

7. The powers and duties of the county board of education:

(*a*) To select a county superintendent, who would be its secretary and executive officer in the performance of all of its other functions, and to appoint assistants as required.

(*b*) To have general control and management of the schools of the county.

(*c*) To submit estimates to the regular county taxing authority of the amount of money needed to support the schools.

(*d*) To regulate the boundaries of the school subdistricts of the county, making from time to time such alterations as in its judgment would serve the best interests of the county system.

(*e*) To locate and erect school buildings.

(*f*) To supply the necessary equipment.

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[1] Bull. Bu. of Ed., 1914, No. 44.

(*g*) To fix the course of study and select textbooks (using the State course and State-adopted textbooks in the States where action has been taken).
(*h*) To enforce the compulsory-education laws.
(*i*) To employ teachers, fix their salaries, and the salaries of other employees.

The county is the unit of supervision in at least 39 States of the Union and some form of county control of schools is now found in 18 States. The district unit of organization is in practice in 28 States. Investigation shows that county control has been adopted by most of the Southern States, while the district is the unit of organization in most of the States west of the Mississippi River. In the New England States, where cities and incorporated towns are included in the township, and where the township is the unit of local taxation and local government in nearly all civil affairs, "township control has proved very satisfactory."

Where conditions are not exceptional, as in New England, county control recommends itself because it is already the unit of supervision in most of the States; it gives the schools better support by giving the entire county the benefit of taxes paid by corporations, such as railroads; it gives the schools better teachers with better salaries, yet the schools are run more economically; it removes the school from unwise local influences and gives opportunity for the selection of teachers from a wider range and upon their merits; and it injects business into the management of the schools.

President N. D. Showalter, of the State Normal School, Cheney, Wash., makes the following argument against the county unit:

We are growing toward a "greater democracy" each year, and any plan proposed for the improvement of our educational system, which at the same time takes out of the hands of the people that which is most sacred to them—upon any pretext whatsoever—should at once be labeled as un-American.

Nothing is worth while which has not behind it a great living personality, and no institution can prosper without human sympathy, and a united personal interest. Personal interest, however, is limited and can only come in contact in the strongest way with conditions near at hand. Impressions that we receive each day concerning the things which are nearest and dearest to us become of greatest personal interest. * * *

The local community ought to be interested most in its own local affairs, and ought to know its own needs, its own possibilities, better than those who view it from a distance. It ought to be willing to make greater sacrifice for local needs than those who are looking on from afar. It certainly has a right to be considered, in a personal way, when anything is proposed as a safe principle for it to follow.

To propose that we (appointed agents) know better how to administer to the needs of the people than they know how to provide for their own well-being is nothing more than an old antiquated theory. It will work out in practice only when such agents are directly responsible to the people, and subject to their suggestion and direction. It is not what we can do for others that counts, but rather how much we can get them to do for themselves. The larger centers, therefore, can furnish suggestion and inspiration; but in order for any principle to become permanent, it must be wrought out and finally approved by the smaller units, and must through the course of time prove to be practical in connection with their needs and to their progress.

Hon. Nathan C. Schaeffer, State superintendent of public instruction of Pennsylvania, gives his position on the county unit:

When our common-school system was organized we found we could not get schools on a county plan. The township was adopted, and there has been no agitation for a county unit. The States south of Mason and Dixon's line have a different political organization from the States north of that line. * * *

Yesterday Mr. C——— was in my office and advocated the obliteration of township lines in school matters. As soon as he discovers that such a plan will increase his taxes he will be against the plan. Unfortunately township lines were not run with an idea to public school administration, but the same is true of county lines. We have the county unit in school supervision, and it is too large.

Pennsylvania has a statute providing for a district school officers' convention at public expense in each county annually and a State school officers' meeting once a year. Anyone who has attended one of these county conventions, like those held in Allegheny and Berks Counties in December, 1914, and witnessed the interest and enthusiasm of these officers, over 350 at each meeting, in all matters pertaining to the improvement of the rural schools, naturally questions the wisdom of changing from this system to one that would reduce the number of active school officers in a county to a small board of from 5 to 10 members, thereby losing the influence and interest of over 350 wide-awake men in the school affairs of a single county. If this interest and influence be multiplied by the number of counties in Pennsylvania for its State-wide effect, it is not hard to see why Supt. Schaeffer dislikes to lose the help of 20,000 men in the cause of popular education.

As chairman ex officio of the committee on rural schools, Dr. Schaeffer made the following report to the Pennsylvania State Educational Association, December 29, 1914, on The County *v.* The Township as the unit of taxation and school administration:

Pennsylvania tried a county plan in 1834 and 1835 and changed to the township plan in 1836. From more than 100 townships independent districts were carved so as to permit more rapid progress in school matters. As conditions have greatly changed since 1836, it is deemed wise to discuss The County *v.* The Township as the unit of taxation and school administration. Moreover, in the Southern States, where the county is the prevailing unit, the educational leaders are trying to secure local taxation, whilst in Pennsylvania some are now advocating county taxes for school maintenance in order to get away from local taxation.

I. The county unit of rural school administration presupposes a county board of education with powers corresponding to those ordinarily possessed by township and city boards and a county superintendent of schools responsible to the county board with powers and duties corresponding to those of city superintendents. The most efficient organization presupposes a small board selected from the county at large and the selection of the county superintendent of this board without reference to the place of residence. Following are the chief considerations favoring the county unit:

1. The civil division corresponding to our county is the unit of rural school administration in the leading educational countries of Europe, viz, the Regierungs-Bezirk in Germany, the Department in France, and the administrative county in England. In England the county unit was substituted for the parish or township unit in 1902.

2. The county has long proved to be a satisfactory unit in certain of our Southern States.

3. The burdens and opportunities of education can be equalized throughout the entire county. The tax rate can be made uniform, and all communities, rich and poor, can be provided with the same minimum educational advantages.

4. Schools may be provided and attendance districts established on the basis of topography, distribution of population, etc., regardless of township or other arbitrary lines. In this way the effective consolidation of schools may be much facilitated.

5. A reasonable degree of uniformity in school year, curriculum, methodology, textbooks, etc., may be secured throughout the county, thus obviating most of the waste and misadjustment resulting from migration within the county when the township is the unit.

6. The county unit requires the time and services of far fewer lay school officials.

7. A county board of education with adequate powers is likely to be made up of men of much better caliber than the average of township boards. The greater importance and prestige of membership on the county board and the selection from the entire county favor this result. It is a matter of experience that members of purely local school boards are likely to be relatively ignorant, prejudiced, and parsimonious.

8. The county unit is more favorable to efficiency of administration and supervision of rural schools. The county can afford the services of a professional leader or superintendent of superior caliber, whereas the townships can not. Under the county unit the direction of all local administration and supervision can be placed in the hands of such a professional county leader.

9. The county unit is more favorable to efficiency of teaching. Owing to the common limitations of purely local authorities, the selection, control, and supervision of teachers by county authorities is very likely to result in better conditions of tenure, higher qualifications, and in general better teaching.

10. For like reasons the county unit is more favorable to securing proper material, sanitary and other correct physical conditions of school work.

11. In general the advantages usually carried by the present general movement toward greater centralization of educational administration result from the adoption of the county unit in place of the township unit.

II. The township unit of rural school administration is the one in vogue in the State of Pennsylvania. Following are the chief considerations favoring the township unit:

1. The township has long proved to be a satisfactory unit in our New England States and a few others.

2. The township unit harmonizes better with the instinct and desire of the American people for local self-government.

3. The township unit is conducive to greater local interest and initiative in matters educational. In securing these advantages the multiplicity of local lay school officials is very desirable.

4. The township unit is more just from the standpoint of taxation and support. Complete equalization of the burden of education is unfair. Every community should bear a considerable part of its own educational burdens without assistance.

5. The township unit is more favorable to the adaptation of education to local needs. Variation to suit local conditions is educationally desirable, as well as reasonable uniformity.

6. In general the advantages usually carried by local autonomy in educational administration are secured through the use of the township unit rather than the county unit.

7. As a rule the township unit corresponds more closely to established practice in America and involves less change and readjustment than the other. This argument of course applies with full force to Pennsylvania.

From the exceptions that can be cited against proper conditions under any of the three systems—district, township, or county—it is evident that the greatest need in this country for real progress in rural education is a public sentiment that will vote the amount of funds necessary for a first-class school within reasonable distance of every child of school age. When the weak district has done all that reason should ask it to do, then the State should come to its

assistance by direct State aid with enough money for nine months of school each year and a teacher professionally trained.

Among the greatest obstacles in the path of rural-school progress are partisan politics, factional favoritism, and selfish nepotism, and it will take something more than any or all of these three units of administration to free our public school system from these evils. It often happens that the larger the unit of administration the greater the political influence in the management of schools, for even State boards of education and boards of control of State educational institutions have been guilty of as evil political methods, favoritism, and nepotism as the school officers of the smallest unit of administration found in the public school system of the United States. The only remedy for such evils is the creation of a public sentiment that will demand that all public school officers, whether elected or appointed, whether in charge of a district school, the schools of township, county, or State, will make merit the determining force in the selection of teachers and public economy their motto in the administration of public school funds and yet not be penny-wise and pound-foolish; for every dollar wisely expended for public education saves two dollars in expenses for jails and prisons. In the management of the public schools, whether under the district, township, or county unit, as well as in the control of State educational institutions, all distinctions, social, political, and religious, should be banished, all differences hushed. This management should recognize "neither party nor church, creed, condition, nor station, but it should be so administered that its bounties and benefits will fall in equal measure upon all."

RURAL-SCHOOL LEGISLATION.

The rural-school legislation that attracted widest attention during the school year of 1913–14 was enacted by a special session of the General Assembly of Ohio, when a complete revision of the State school code was made. The history of American education does not record instances of many States that have held special sessions of the legislature solely for the revision of the school laws. The more important laws relating to the rural schools enacted by this special session of the Ohio General Assembly were as follows:

1. New rural-school supervision law. Under this act the school districts of the State are to be styled, respectively, city-school districts, village-school districts, rural-school districts, and county-school districts.

2. Law on the training of teachers for village and rural schools. Boards of education which maintain first-grade high schools in village or rural districts may establish normal departments in such schools for the training of teachers for village and rural schools. Not less than one nor more than three such schools shall be established in any county. The superintendent of public instruction is to designate schools to establish such departments.

3. Law basing the distribution of the State school fund on the number of teachers and average daily attendance of pupils.

4. Law on minimum salaries for teachers. No person shall be employed to teach in any public school in Ohio for less than $40 a month. When a school district has not sufficient money to pay its teachers such salaries for eight months of the year, after the board of education of such district has made the maximum legal school levy, three-fourths of which shall be for the tuition fund, then such district may receive from the State treasurer sufficient money to make up the deficiency.

5. Law for State aid to weak school districts appropriates the balance of former appropriations and the sum of $85,000.

6. Law providing that agriculture shall be taught in all the common schools of all village and rural school districts which are supported in whole or in part by the State. It may be taught in city school districts at the option of the board of education. Four district State supervisors of agricultural education are to be appointed by the superintendent of public instruction.

7. Law on standardization of village and rural schools. Instead of examining the pupils for admission to high schools, the elementary rural schools from which they come are to be examined in equipment, courses of study provided with competent and ever-present supervision, and standardized so that the school and the teacher may stand the test as well as the pupil.

To get a clear understanding of how all this was accomplished, it is necessary to know something of the Ohio State school survey which preceded this legislation. The story of this survey is given in the report to the governor of Ohio by the State school survey commission, created by an act which passed the general assembly February 26, 1913, to conduct a survey of the public schools, normal schools, and the agricultural schools of the State. The survey was a cooperative field study conducted by Dr. Horace L. Brittain, of the New York Training School for Public Service. It comprised an intensive study of 659 rural village schools in 88 counties, and an extensive study of 9,000 schoolrooms and 395 school systems. It was participated in by 44 professors in professional schools for the training of teachers and 116 students in these institutions, most of whom had had experience in rural teaching, 395 superintendents of schools and other school men and women, and 9,000 teachers who supplied information for the commission. It was a State-wide revival in school matters, as well as a State-wide scientific survey of school conditions. Gov. Cox named November 14, 1913, as State school-survey day for the entire State. In his proclamation he said: "Let it be a day of genuine awakening. The necessity and opportunity of the hour call for it." It is estimated that 4,000 community meetings were held on this date, where probably 500,000 citizens of Ohio learned of school conditions throughout the State and listened to the remedies suggested for improvement.

The commission, in its letter of transmittal, says:

> We have tried to make a matter-of-fact statement of the results of our field work. Our motto has been: "Nothing extenuate, nor set down aught in malice." We have taken no pleasure in laying bare deplorable conditions. We believe the simple statement of these conditions will do much to bring about the reforms which we urge. We have also found much to commend—good teachers, good conditions, and a good spirit. On these we must build.

FREE TEXTBOOKS.

Rural schools have been at considerable disadvantage as compared with city schools, through lack of free textbooks. In 1913 Missouri and Oregon[1] secured laws permitting the local school authorities to adopt the free textbook system. This policy is strongly advocated in many States where it has not prevailed hitherto—Florida and Louisiana, particularly. State Supt. Harris has recommended, in his official report to the Legislature of Louisiana, the enactment of a law providing for free public school readers, with special thought for the rural schools. In support of this measure he says:

> The most important textbook in the course of study is the reader. I suggest the passage of a law which will relieve the children of the State from the necessity of buying readers, and requiring each parish school board to furnish at least three sets of different readers for each grade and for each public school, from the first grade to the fifth, both inclusive. This would furnish ample reading material, and would relieve children of the necessity of buying readers. Granting that the life of a reader is three years, the annual cost to the State would be between thirty and forty thousand dollars. This amount distributed among all of the parishes would not prove a burden, I think, to any one parish.

It can be safely affirmed that wherever proper attention has been paid to the administration of the free-textbook law the results have been highly satisfactory to school authorities, teachers, and patrons. It is, furthermore, safe to assume that having once come to understand the advantages of this logical extension of the free school idea, the people of a State will not willingly go back to the system of pupil ownership of school textbooks. In those States that have mandatory statutes providing free textbooks this policy has proved a far greater success than in the States where it is optional. Free textbooks in all the States will remove another handicap which the country districts have had as compared with most cities.[2]

AGRICULTURAL EDUCATION AND HOME ECONOMICS.

Evidence of the progress made in agricultural education and home economics in the rural schools of the United States for the school year 1913–14 is found in the farm life schools of Minnesota, in the $100,000 increased appropriation for the county agricultural high schools of Mississippi, and in the Smith-Lever Act previously referred to. The appropriation under this act begins at $480,000, increasing each year until it continues permanently with an annual appropriation by Congress of $4,580,000. As each State must make an appropriation equal to its share of this sum, it means that, when this act is in full operation, over $9,000,000 a year will be available for extension work in agricultural education and home economics.

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[1] Repealed in 1951.

[2] The textbook situation in the various States is treated in detail in a bulletin now in preparation.

AGRICULTURAL HIGH SCHOOLS.

1. *Minnesota.*—An extensive, liberally supported, and successful system of agricultural high schools is found in Minnesota. There are 176 of these schools—60 Associated Farm Life Schools, and 116 Consolidated Farm Life Schools, with a total high-school attendance of over 30,000 pupils who are pursuing industrial education.

In addition to a liberal local tax for the support of these schools, it is possible for them to receive in the aggregate each year $1,500,000 direct State aid. There is State aid given to a school (1) as a high school; (2) as a consolidated high school; (3) as an associated farm life school; (4) as a teacher-training high school; and (5) for industrial work in agriculture, normal training, and home economics.

These schools do not stop with the regular instruction of those in actual attendance; the extension work is a strong feature, consisting of evening schools, correspondence courses, and numerous community activities. In brief, these schools are civic, social, industrial, and educational centers for their respective communities.[1]

2. *Mississippi.*—The State department of education in Mississippi secured the passage of an act by the legislature of the State in 1908 authorizing the establishment of county agricultural high schools. After several schools had been established and were in operation, the Supreme Court of Mississippi declared this act unconstitutional. The interest in these schools was so great, however, that they did not close their doors. Provision was made through private subscription to continue their work until the succeeding legislature might have opportunity to meet the constitutional objections. The legislature of 1910 passed an act coinciding with the views of the court, and no constitutional objection has since presented itself.

The county agricultural high schools of Mississippi are supported by both the county and the State. The proper taxing authority in any county may levy the required tax for the establishment of a county agricultural high school upon proper petition signed by a certain number of taxpayers and by giving due notice in the county papers without submitting the question of voting a tax therefor to all of the legal voters in the county, provided that when a petition is signed by 10 per cent of the taxpayers of any county protesting against such tax, then the question must be submitted to a vote of the taxpayers before the tax can be levied and the school established. A majority vote decides the question.

Within the last five years about 45 counties have established these schools. As evidence of the increasing interest among the people of Mississippi in agricultural education it is sufficient to point to the increased appropriation made by the legislature in February,

[1] A bulletin on the Minnesota schools is in preparation.

1914, for county agricultual high schools—$167,500—an increase of $100,000 over that made two years ago.

In the 45 county agricultural high schools of Mississippi there are now nearly 5,000 young men and young women enrolled, 75 per cent of whom are from the farm, and over 50 per cent are boarding students.

The attendance of farm boys and farm girls at these schools argues eloquently for the county system of agricultural high schools, as compared with the congressional district system in some other States. While these district agricultural high schools would naturally receive a larger appropriation for buildings and equipment, they do not reach anything like the number of students the county schools would benefit. By the time Mississippi has an agricultural high school in every county the aggregate attendance in all such schools will be over 10,000 students.

The low cost of board in these schools is probably not equaled in any other State. The reasons for this are the climate, which gives a garden season the year round, the opportunity given students to pay their way in whole or in part by work, and the recognition of the schools by the trade as merchant buyers, whereby they get all their supplies at wholesale prices. Before giving credit for work done by the students, the boys working on the farm and in the garden and the girls helping in the kitchen, waiting on table, and assisting in the poultry department, the average cost per student is about $6 per month. After giving credit for such work, the average cost per student is less than $4 per month.

Room rent is free. In many of these schools the dormitories are equipped with electric or acetylene gas, hot and cold water baths, and inside toilets.

Hon. J. H. Powers, former State superintendent of public instruction, now chancellor of the State university, says:

> I feel safe in saying that not more than 12 per cent of the students enrolled as boarders would be in our agricultural high schools were it not for the low cost at which they are being educated.

The material equipment of the school plant is usually an administration building, which includes the recitation rooms, a dormitory for girls and a dormitory for boys; a farm properly platted and stocked, including barns and farm machinery. The value of these plants varies from $15,000 to $50,000, owing to the local donations made in order to secure the school and the amount given by the county. For example, the farm at Ellisville contains only 40 acres, while at Brooklyn it is 320 acres and at Perkinston 575 acres.

As to the practical things done in all of these schools, good examples are found at Ellisville and Poplarville. In Jones County last year there was an epidemic of hog cholera. Principal John R.

Hutcheson and some of the young men among his students at Ellisville went to various parts of the county and "inoculated" over 2,000 hogs affected with cholera for the farmers of Jones County. Over 90 per cent of the hogs treated got well. Such a practical demonstration convinced the farmers that there is something worth while in the work of the agricultural high schools. They learned a lesson that meant dollars and cents to them.

The conservation of human life marks the work of Miss Rowan, the home-science teacher at Poplarville, in Pearl River County. An invalid mother was induced by Miss Rowan to let the schoolgirls take care of her baby under Miss Rowan's instructions. It is the school baby. It has had the best care that human hands, directed by skill and science, could give it. When asked why she had placed such a task upon herself and her young women of the school, Miss Rowan replied:

> Last year, immediately after school closed, several of my freshman girls married, and still a larger number of girls married in the other three school classes. I do not propose hereafter to let my girls take upon themselves the awful responsibilities of motherhood without knowing how to raise a baby.

CHAPTER VI.

SECONDARY EDUCATION.

By Thomas H. Briggs,
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Contents.—General survey—Why improvement of high schools is slow—Pioneer efforts at improvement—The high school in the surveys—The junior high school.

So far as the number of secondary schools is concerned, the great majority are undoubtedly continuing traditional activities without serious consideration of the needs of the pupils or of the results actually obtained. The reactionary principals and teachers are of two classes—those who thoughtlessly follow traditions that were established many years ago for a more homogeneous group of children, and those who through thought are satisfied that the same rigid discipline is needed for all. The former class are always a dead-weight to any movement; the latter are serviceable, even when wrong, in that they prevent a too rapid modification of what experience has found not wholly bad and in that they discourage the promulgation as ultimate cures of partial or erratic programs.

It is peculiarly unfortunate that the small secondary schools, especially those in districts that must make real sacrifices for their support, should continue to be so ill-adapted to the obvious needs of their communities. It is difficult to see how the majority of them are justified, either by aim or by achievement. The larger secondary schools can afford to experiment, to offer to various homogeneous groups of pupils work differentiated according to their abilities and ambitions, and to add various extra-class activities which nearly simulate real life; but the smaller schools, on account of the limited number of pupils, of incomplete equipment, and of teachers who because of the salary are inexperienced or inefficient, offer what is usually a rather weak college preparatory course. It is no reflection on the adequacy of this course for its peculiar purpose to say that when administered poorly and to all pupils alike, regardless of capacities, interests, or aims, it is extremely wasteful. The smaller secondary schools, which constitute one of the monuments to the American belief in education, beautiful even if often blind, need perhaps more than any other part of our educational system wise

reorganization. A satisfactory result is not likely to be gained merely by a change in the program of studies or in the curriculum; the teachers themselves must be improved. Whether this end be achieved by a system of rewards offered by the State, as proposed in Massachusetts, for continued and improved service in the same position; by centralized senior institutions to which many of the present struggling high schools will act as feeders, as recommended by the Vermont commission; by enlarging the high-school district and providing transportation for the pupils, as has been done in the Middle West; or by providing sufficient funds to support schools fitted to local needs, as in a number of small communities of the far West—whether this end be achieved by one of these means or by some other, local conditions must decide. We can not afford to continue sacrificing the children so that the small secondary school may be little more than a stepping stone for the inexperienced or a haven for the incompetent teachers.

WHY IMPROVEMENT OF HIGH SCHOOLS IS SLOW.

Improvement in secondary schools is hampered for several reasons. In the first place, a majority of principals and teachers do not possess a philosophy of education which is satisfactorily based on the newer principles of psychology and sociology. A persistent belief on the part of many that because a subject or a part of a subject is difficult or distasteful, it is therefore educative, that habits acquired in one field are surely transferred to all others, and that native individual differences can be ignored or destroyed, makes progress all but impossible. Furthermore, much of the philosophy that has in it most promise for the future is stated in general terms which win verbal acceptance, but are not thereafter applied to the details of curriculum or teaching. The psychologist and the sociologist have already made contributions that will vitally affect secondary education, and to these they will doubtless add; it is the opportunity and the duty of schoolmen, when they comprehend and accept the new principles, fearlessly to apply them to the work of the schools. An attempt to do so will inevitably result in active opposition by those who are indurated in tradition regardless of its worth, and passive opposition by those who do not have the fundamental training and a vision; but if the principles are sound, the ultimate result can not be doubted. A notable effort to adjust the secondary schools of a State to its needs has been made by New Hampshire.[1]

Improvement is hindered, further, by the apparent lack of definite purposes in daily teaching. For a long time it was common belief—

[1] An outline of the plan was presented by Deputy Commissioner H. A. Brown in The School Review, March and April, 1914.

perhaps it still is—that if a person knows the facts in his subject he can teach it. Undoubtedly subject matter is the first essential, but it is not the only one, in the making of a good teacher. To it certainly must be added specific, well-based purposes for every lesson. It is hopeful that the statements of purposes in educational literature are growing more and more definite. Perhaps the most promising immediate reform is likely to grow out of the work of the Commission of the National Education Association on the Reorganization of Secondary Education. A preliminary report was published as Bulletin No. 41, 1913, of the United States Bureau of Education, and the various subcommittees reported further at the Richmond meeting of the Department of Superintendence. The work of this commission has recently been fortified by the publication of such composite books as "High School Education" and "The Principles of Secondary Education," edited by Profs. Johnston and Monroe, respectively, and several volumes in the Riverside Educational Monographs.

PIONEER EFFORTS AT IMPROVEMENT.

It is not to be understood that all secondary schools are satisfied to perpetuate traditions. Perhaps the most important one impression gathered from a visit last year to more than 150 high schools in 24 States, representing all sections of the country, is that of dissatisfaction with present conditions, a dissatisfaction not merely with the administration of the details of schools as they exist, but also with the general organization and its achievements. This has resulted in the introduction side by side with the old studies of many new ones—from Roman customs and culture to tinsmithing—all of which may be counted as credit toward graduation, and in hopeful experimentation with the course of study in each individual subject, with the program of studies as a whole, and with various phases of the school organization. The small high school manifests such independent effort at reorganization only rarely, when a vigorous principal is for some reason held beyond the usual brief term. Usually a change is caused by imitation of a neighboring city high school or through the influence of a new textbook. Among the larger high schools 90 per cent are probably earnestly trying to improve methods of instruction, while of these, perhaps one in four is, in the eyes of the conservative, dangerously revolutionary.

Pioneer work in various subjects is being attempted in many parts of the country as never before, usually with the intention of relating subject matter more intimately and more consciously with actual life. Some notable attempts at improvement may be noted

as follows: In English are those undertaken by the National Council of Teachers of English and reported, for the most part, in the English Journal. In Latin, the direct method, especially in the first year, is used in an increasing number of places—e. g., Jamaica High School, New York; the Horace Mann Schools, Columbia University; and the Lincoln High School, of Portland, Oreg. The Woodward High School, Cincinnati, is developing a course in Latin that should be of peculiar value to students in the commercial department who will take only two years of an ancient language. In a number of schools there have been exhibits stimulated by Frances E. Sabin's "The Relation of Latin to Practical Life." Better still, the influence of these exhibits has obviously made itself felt in classroom instruction. In Oak Park, Ill., and the Hollywood High School, of Los Angeles, rooms have been supplied not only with pictures and busts of great Romans, but also with furniture in imitation of that used in Rome. The Hollywood and Grand Rapid Schools have given annually in Latin one or two short dramas. In the modern languages the teaching is more and more, apparently, by the direct or semidirect methods.[1] The increase in the number of schools offering Spanish, especially as a preparation for foreign trade, is marked. Foreign languages, especially German, are begun in the lower grades in a number of cities—e. g., Cincinnati, Cleveland, and Columbus, Ohio; Gary and Richmond, Ind; and Buffalo, N. Y. The Rochester (N. Y.) East High School publishes monthly a German magazine, "Der Deutscher Kamerade," and several schools—those at Los Angeles, for example—give public performances of dramas in German or French.

In music there are four lines of development that are achieving significant results. The first is the teaching of the history and appreciation of music. This work is presented in such places as Springfield and Chelsea, Mass., Oak Park, Ill., Richmond, Ind., Kansas City, Mo., Pittsburgh, Pa., and Los Angeles, Cal., usually with the aid of phonographs and mechanical player pianos. The second, which supplements the first and reaches many more students, is the lecture on musical instruments, forms, and composition, followed by a performance by the local orchestra. This is found in larger cities like St. Louis and Minneapolis. The third is the organization of school orchestras and brass bands, participation in which usually carries school credit. Oakland, Cal., probably leads in this movement; it has recently expended $10,000 for band instruments. The fourth is the increasing tendency to allow credit for music taken outside school under approved teachers.[2]

[1] See Bulletin No. 3, 1913, of the United States Bureau of Education.
[2] See Educ. Bull. No. 33, 1914.

In fine arts there appears a gradual improvement of work in proportion to the increase in the number of teachers who are skillful both to execute and to instruct. The extension of the work in secondary schools to include other than the usual media, to the making of jewelry, etc., and to all forms of applied design, is significant. Colorado Springs, Los Angeles, and Indianapolis represent cities doing unusual work of the former kind. The Washington Irving High School, of New York City, well represents the schools teaching applied art. At the Ethical Culture School, of New York City, there is developing a fine arts high school in which the entire course of the last two years, including literature, science, history, etc., is centered about art.

In mathematics there is much advocacy of the European plan of introducing earlier algebra and geometry and of teaching them either together or on different days of the week. Pioneer work to this end has been done at the University of Chicago High School, at the Horace Mann Schools and Stuyvesant High School, New York City, at the William Penn High School for Girls, Philadelphia, and at Lincoln, Nebr. At Indianapolis and Bloomington, Ind., Altoona, and South Pueblo, among other places, systematic effort has been made to teach pupils how to study mathematics, and at the last two places all the preparation for the first-year algebra recitations is said to be done in class. The tendency toward making mathematical problems practical is marked, and in many places there are offered courses in household arithmetic, commercial arithmetic, or shop mathematics. Such courses seem to satisfy the shop or laboratory better than the mathematicians, who assert that the work is not sufficiently extensive or logically organized. The Tuskeegee plan of offering systematic courses in mathematics, but turning aside whenever it is possible to solve in class problems that arise in the shop or field work of the students, is an interesting compromise.

It is in science that efforts at reorganization are most conspicuous. Beset by demands from the colleges that science be "logically organized," by demands from the newer subjects in the curriculum that it be adapted to their needs, and by the public that it be made more practical, high schools are offering new courses and are making prominent the practical type of problem even in those courses that retain their former organization. The new textbooks and the revisions of those already in use are indicative of the tendency. Some new courses offered are those in the chemistry of the household, of cooking, of industry, and of agriculture; those in the physics of farm life and of gas engines; and those in sanitation and health. There seems to be a minimum of opposition to the introduction of such courses; there is, however, a decided difference of opinion as to what

preliminary courses there must be in pure science. The rapid progress of "general science" for the first year of the four-year high-school course is marked, especially in the Middle West. The pioneer work in Chicago, New York, Oak Park, Philadelphia, Pittsburgh, and Los Angeles is finding definite form in a number of textbooks which have recently appeared or are preparing.

When closely examined, pioneer courses not infrequently are crude, time-consuming, and unsatisfactory. For example, household mathematics for certain girls meets with pretty general approval, but when such a course consumes a whole year of secondary education and does nothing more than apply the simpler principles of arithmetic to the business of housekeeping, it is not likely to be considered an equivalent for most of the courses already of established standing. The weakness of most of the pioneer courses is that they are compromises; in attempting to rest on the newer philosophy of education and at the same time to meet traditional claims, they are unsatisfactory to both. Much of the protest of the high schools against the "dominance of the colleges" has been due to the fact that the latter have not, as a rule, been kindly disposed toward innovations. Their position when opposing changes by competent teachers has been harmful to themselves as well as to the high schools; when opposing explorations from unstable bases toward uncertain ends, it is impregnable. If the underlying philosophy is sound and the effort fearlessly made toward worthy ends, the results must be ultimately approved.

The introduction of novel courses and the reorganization of old ones emphasizes again the necessity of a consideration of educational values. Statistical studies showing that in certain secondary schools 20 hours are given to subject A and only 4 to subject B, and that 1 pupil-hour of subject A costs five times as much as 1 pupil-hour of subject B, are interesting, but no satisfying conclusions can be drawn from them until there is more knowledge concerning the value of each element involved. All over the country there seems to be a growing demand for the scientific measurement of educational results, culminating in the bureaus of educational research established in a number of cities.[1] One well-known private secondary school had on its staff last year a consulting psychologist and statistician. The recent establishment of the Journal of Educational Administration and Supervision will provide another means of disseminating the results of experimental and statistical studies.

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[1] See p. 39.

THE HIGH SCHOOL IN THE SURVEYS.

The school surveys published during the year give a varying amount of attention to the high school. The Butte (Mont.) commission (George Drayton Strayer, director) presents a table showing the sizes of all high-school classes, which are relatively small, and suggests that for the sake of economy—

special attention should be given to the technic of program making. It is noteworthy that the average size of the English sections, which for composition work all agree should be relatively small, is exceeded by the average size of sections in only geology and the commercial branches.

The commission also presents a table showing the number and per cent of failures in each subject. This table manifests the usual wide range: In eight subjects there were no failures; in French and physics there was the maximum percentage (32+), while the average in all classes was 10.77. The criticism of the high school, although limited in extent, is on the whole favorable. The commission mildly protests that the work is traditional and too limited in scope. It recommends an adequate new building, and after giving clearly its reasons, urges the establishment in the present high-school building of a junior high school.

The report of the survey at Springfield, Ill., conducted by the Russell Sage Foundation (Leonard P. Ayres, director), contains a short chapter on the high school. The criticism is directed against the organization, the building, the teaching, the course of study, and the failure to provide systematically for the advice of students in regard to their election of courses. Two sentences will illustrate one point of view of the surveyors: "Despite the fact that most of the children stay only one or two years and that this condition has maintained ever since the high school has been in existence, the entire work of the school is planned as though all of the children who entered remained for the entire four-year course." "The character of the work in the high school and the emphasis placed on the different subjects has been largely dictated by the demands of college entrance examinations. The fact is, however, that the Springfield high school is in only slight degree a college preparatory school." It is declared that only 1 pupil in 16 who enter the school goes to college. To relieve the overcrowded high-school building, to provide an easier transition to the high school, to hold pupils better, and to make less difficult the problems of vocational education, the commission recommends the establishment of four junior high schools.

In the chapter on "The High-School Situation" of the report of the survey at South Bend, Ind. (J. F. Bobbitt, director), there are

four tables concerning the organization and cost of instruction. Clearness has been sacrificed for economy in the following rearrangement of the principal data:

The high school at South Bend, Ind.

Subjects.	Cost of instruction, in per cents.	Instruction-hours, in per cents.	Cost of instruction per student hour.	Amount of class work per teacher.	
				Number of hours per week.	Average size of class.
Commercial subjects	10.6	15.1	$0.043	21.3	25.6
Domestic arts	2.9	2.4	.074	25.5	14.5
Domestic science	3.5	3.1	.070	24.5	18.5
Drawing	2.2	2.7	.051	29.3	16.8
English	15.7	14.9	.066	14.6	23.5
History	7.7	7.8	.062	17.3	22.6
Latin	5.4	3.9	.085	20.0	15.6
Manual training	8.1	4.5	.111	20.0	15.5
Mathematics	11.7	11.2	.062	18.6	22.0
Modern languages	7.1	6.9	.063	18.9	22.6
Music	.5	2.3	.016	26.7	52.0
Physical training	5.8	8.8	.041	21.3	37.9
Public speaking	5.8	3.5	.104	18.7	17.2
Science	13.0	12.9	.062	22.0	21.7

The report criticizes severely the proportionate expenditure of time and money thus revealed. There is also presented another table in which the median salary of high-school teachers of South Bend is compared with the median in other cities of a similar size.

The school survey of Portland, Oreg., under the direction of Ellwood P. Cubberley, contains criticisms and recommendations concerning secondary schools by John H. Francis and Frank E. Spaulding. The chief criticisms are that the high-school principals and teachers are engaged in teaching subjects rather than in educating the youth of the city; that the uniformity of curriculum for all high schools is a distinct barrier to progress; that subjects in the curriculum are uniform and isolated; that pupils' courses lack unity and definiteness of purpose; and that the examination system costs 20 per cent of the school year without returning results of significant value. Among the recommendations are that the city establish at convenient locations seven or eight junior high schools consisting of grades 7 to 9; that it extend the work upward two years both for those who will ultimately go to college and for those who will not; that it enlarge and modify the courses in the night high schools so as to supplement with theory the practical work done in trades during the day; that it provide in all the high schools more vocational and technical work; that it establish an art center in which high school pupils with especial aptitudes may devote each week one or two half days for which they will receive credit toward graduation; that it constantly modify the course of study to meet the ever-changing needs of pupils and to fit for the ever-varying service that society demands;

that it keep the schools open from 8 o'clock to 5 six days in the week; and that it base promotions not on what a pupil has learned, but on what he needs to know.

The report of the survey of education in Vermont, prepared by the Carnegie Foundation for the Advancement of Teaching, contains an extensive monograph on the secondary schools. William S. Learned, who prepared this section of the report, considers the high schools primarily in their relation to the State as a whole; everywhere he lays insistence on the importance of considering all the children of secondary school age. From among the 11 recommendations with which he concludes his study the following quotations will be of especial interest:

6. A higher standard of qualification of teachers. No certificate should be granted merely for a college diploma; to be of value to the schools, college work must have been properly focused * * *. To this must be added in practice the stipulation that teachers be employed in those subjects in which they are prepared. [Experience in teaching under supervision should also be required.] 7. Improved conditions of service for teachers, e. g., reduction in the number of classes and subjects to be taught, increase of capable supervision, and gradual increase in salaries. 8. An avowed shift of emphasis in education from the curriculum to the child, involving the intimate and continuous study of each individual child to determine what his characteristics and needs are—his natural latent assets—and the adaptation of curriculum, organization, and methods of the school to the development of those assets, to the end that the value—personal, social, and economic—of each individual may be increased to the largest possible extent. 9. A persistent and careful scrutiny of the cost of the curriculum as applied to each school, with a view to securing the largest actual returns for the money involved * * *. It should lead to the abandonment of expensive courses for a few specialized students unless, as is often possible with pupils having initiative, these can be directed informally. 10. A general reorganization of the secondary schools on the principle of centralization. [Fifteen to eighteen central high schools are proposed, with which numerous junior high schools presenting the work of Grades VII–X will articulate.] 11. Provision for the collection and interpretation of the most important secondary school statistics.

THE JUNIOR HIGH SCHOOL.

Although among the variations in the organization of American schools there have doubtless many times been approximations to the junior high school, or intermediate school, the present movement toward an equal division of the 12 years of general education between the elementary and the secondary schools seems to have been initiated by E. W. Lyttle, who at the National Education Association in 1905 argued that "secondary education should begin as soon as the elementary pupil has acquired the tools with which he may gain a higher education." Subsequent to this address the Department of Secondary Education appointed on the subject a standing committee of five, which, under Mr. Lyttle and G. P. Morrison as chairmen, reported to the association in 1907, 1908, and 1909. The first two reports presented arguments, both educational and economic, for

the establishment of the six-year high school; the last one, after quoting from letters by prominent schoolmen who after more or less experience favored the organization, declared that "the change to a six–six division is inevitable; it is now taking place in various ways to meet local conditions." The movement has had further impulse since then by the reports of the Committee on Economy of Time in Education and of the Commission on the Reorganization of Secondary Education.

However strong the arguments for annexing two years to the high-school period, such a change could hardly be successful unless at the same time there were dissatisfaction with the work now generally done in the seventh and eighth grades. Such dissatisfaction there is in abundance. The distribution of eight years to the elementary school and four to the high school is pretty generally accepted as an accident, finding no justification in comparative education, psychology, or the logical demands of local conditions. Besides this, the curriculum of the elementary school has become hopelessly congested, both by the introduction of subjects new to any curricula, and by the adoption, usually under stress, of subjects formerly taught in secondary schools. Most, if not all, of these subjects are now so firmly established that the attack on "school fads," usually coupled with a demand for a "return to the three R's," is received with small sympathy by schoolmen or by the public. With an increasingly complex social and economic life, the schools can never return to the old simple form of education. Those defending the newer subjects declare that there would be ample time for all useful matter in the upper grades if there should be eliminated from such subjects as grammar and arithmetic the formal phases that can be justified only by tradition or by a belief in the discredited doctrine of formal discipline, and if they would put a stop to the wasteful and futile reviews that now occupy so much of the energy of these last years of the elementary school. It is charged, moreover, that there is a lack of real progress in the seventh and eighth grades, and that the large mortality of pupils in the first year of high school is due not to the arbitrary course or to the poor teaching in the upper school, but rather to the fact that the preparing school has not done its full duty.

Another charge pretty generally made against the usual organization of our schools is that it causes too sharp a break after the eighth grade, that the elementary school courses lead nowhere, neither to the secondary school, nor to competent work in the world. Worse still, the break comes for a great many children about the time that the compulsory education law ceases to hold them in school and for the majority at the time when the changes concomitant with early adolescence are logically demanding satisfaction. At this time the

demand for differentiated courses must be met or children leave school. The justification of the usual single course for all children has usually rested on a profession that democracy should afford an equal opportunity to all; but inasmuch as children of this age differ so markedly in ability, interests, and ambitions, democracy is fair only if it offers to each pupil what will best advance him in his peculiar development. The persistence of the traditional organization of the upper grades results in an annual loss of an impressive army of children, none of whom will contribute to society as well as if the school had adapted itself to his needs. The aggregate loss is tremendous. For all of these reasons, alleged and actual, the arguments for the new organization have been heard by schoolmen and by the lay public with unusual hospitality.

THE NAME AND DEFINITION.

Two names have been used for the new organization, the junior high school and the intermediate school, the latter being general in California, the former in most other parts of the country. There are obvious arguments for and against each; Supt. Cary, of Wisconsin, for example, prefers the name intermediate school, declaring that—

> one high school is enough in the minds of the people. This sort of school is "intermediate" between the grades and the high school and is not either grade work, as we now understand grade work, or high-school work, as we know high-school work.

On the other hand, this name is likely to suggest grades 4 to 6 of the elementary school; while the name junior high school is more or less self-explanatory, it parallels the term junior college, and it is especially attractive to the children. Inasmuch as the organization, like the name, varies, a definition must be arbitrarily made. Although by some it is held that the junior high school, or the intermediate school should admit all children of 12 years, regardless of educational advancement, it is defined for the purposes of this report as *an organization of grades 7 and 8 or 7 to 9 to provide by various means for individual differences, especially by an earlier introduction of prevocational work and of subjects usually taught in the high school.* A definition on the basis of age is preferred by Commissioner Snedden, of Massachusetts, who predicts 100 junior high schools in that State within five years.

APPROXIMATIONS IN THE UPPER GRADES TO THE JUNIOR HIGH SCHOOL.

It will be seen at once that in the usual organization of the upper grades, especially in our better schools, there are frequently included some of the elements suggested by the definition above. Departmental teaching, for instance, which is customary in the junior high school, is frequently found in the upper grades. It is the practice to have special teachers of music, drawing, physical culture, and all

forms of industrial work; and, in addition to these, there is an increasing number of teachers who give instruction only in those academic subjects in which they are strongest. The advantages of the plan are obvious; the chief objection seems to be that a child among several teachers may have no one who will be his especial adviser and friend. This objection is anticipated by wise superintendents, who provide through a system of "home rooms" especial oversight to each pupil. It is infrequent, moreover, that in the upper grades there are as many teachers as subjects; in fact, one principle to be observed provides that the increase in the number of teachers for each child shall be gradual.

The usual organization of the upper grades frequently includes some industrial work, too—sewing or cooking for the girls and some one of the various forms of manual work for the boys. The difference seems to lie in this, that the elementary school offers such work for the most part for general culture, whereas the junior high school offers it especially as prevocational training. Of course, there are exceptions to this statement; indeed, the tendency everywhere seems to be toward discarding exercises of a type that do not frequently reappear in life, and toward consciously presenting the subject so that a pupil finds out his own aptitude and interest in it. The upper grades sometimes, but far less often, include also commercial branches, the elements of algebra, and some foreign language, most frequently German.

The question is often asked, why, if such differentiation is already begun in many elementary schools, there is any need for the new organization. From the fact that only a relatively few elementary schools have introduced even one of the subjects mentioned above and that nearly all of the junior high schools offer a number of them it would seem that it is easier to introduce such subjects in a new organization than in the old. Moreover, there are other desirable elements of the junior high school that no reform of the upper grades can achieve; these elements are discussed later in this chapter.

Many of the junior high schools, it must be said, are educational accidents. Occasionally the pupils of the first year in the high school have been segregated with those from the seventh and eighth grades in order to relieve congestion in the high-school building; in a larger number of cases, a new high-school building having been erected, the pupils of the upper grades, with or without those in the first year of the high school, are placed in the old building, which usually, besides being too good to be destroyed, is well adapted for such work. To this organization the school authorities have added various educational reforms with the result that a new type of school has been created. In many private schools and in a smaller number of small public high schools containing under one roof all the grades from the first to the tenth or twelfth, reorganization has been effected so that the essen-

tials of the junior high school are incorporated into grades seven to nine. The success of these ventures, supported by educational theory, has stimulated other school systems to establish junior high schools with new buildings suitably located, teachers fitted especially for the work, and a program of studies markedly different from that ordinarily found. Los Angeles typifies this class.

The very general approval of the plan to reorganize our educational system so as to include junior high schools is significant of the trend of sentiment. Representative of sources of approval are the following: All but one of the school surveys published during the year, the one exception being in a city that had just erected a new $500,000 high-school building; the University of Minnesota, which by resolution passed by its faculty and its board of regents in 1914 recommends the organization "as soon as local conditions will admit"; the Inland Empire Teachers Association, which indorsed the plan by a unanimous viva voce vote after an address by Commissioner Claxton; a committee appointed by the Association of City Superintendents of Wisconsin to study the plan; the National Council of Teachers of English, which is using the 6–3–3 division in the study of the teaching of English; the North Central Association; and numerous public addresses and articles in educational magazines.

ADVANTAGES CLAIMED FOR THE JUNIOR HIGH SCHOOL.

There are four major claims made for the junior high school: First, that it provides better for individual differences; second, that it makes easier the transition to the high school; third, that it decreases the number of pupils eliminated from the school system; and fourth, that it furnishes an opportunity for various reforms in instruction. The need for provision for individual differences, especially at the period of early adolescence, will be recognized by all who are cognizant of the studies made by psychologists during the past two decades. The possibility of securing homogeneity of groups is determined for the most part by the aggregate number of children assembled; consequently, when all of the children of the seventh, eighth, and ninth grades in a system of schools are collected in one building, especially if departmental teaching and promotion by subject are provided, the grouping can be far more satisfactory for differentiated subject matter and instruction. The mere fact that all of the children in such an organization as the junior high school are so closely grouped in physiological, chronological, and mental ages is said also to make discipline much easier. In such a school it is possible in various ways to test each child and thereby to find what are his natural interests, his ambitions, and his capacities. Moreover, he can be introduced to several subjects seldom taught in the grammar grades and learn himself if he have aptitudes

in them. If, after fair trial, it is found that a certain child has no ability in a subject of study or that it is not likely to forward him in the career which he has chosen, he can be directed to a course better for him. This exploration, if begun in the seventh or eighth year of school, reaches more children, and time lost here is not so material as it is when the children are two or three years nearer the end of the schooling afforded by the local community.

By the definition arbitrarily made of the junior high school, it offers certain subjects usually found only in the high school, subjects like one or more foreign languages, mathematics beyond arithmetic, and prevocational studies, either commercial or industrial. It is felt by those who have most interest in the future of Latin that under the usual organization either too much or too little time is given to it, that in four years it is impossible to prepare youth for the college requirements in Latin and at the same time make the subject contribute the maximum of the cultural elements of which it is possible. The modern foreign languages are said to be acquired better if begun at 12 than at 14 or 15; whether they are or are not, it seems necessary for them to be introduced earlier, if they are to become working tools. The mathematician pleads that the character of mathematics should be changed after the sixth grade, first, because by that time the fundamental processes have been mastered; second, because of the lack of logic in the present sharp divisions after arithmetic and algebra; and, third, because of the greater success in all other civilized countries under the proposed redistribution of subject matter.[1] The introductory work in prevocational subjects is justified by the fact that each child taking it gets something of practical value, that it reaches a far larger number than when introduced in the ninth year, that it gives each child a more intelligent understanding of the work of the world, and that it acquaints him with the possibilities in the subjects and in himself. For several of these reasons it would seem that the logical place for general science also is in the first two years of the junior high school.

Finally, so far as individual differences are concerned, the larger number of pupils collected into one organization makes possible better provisions for children with varying degrees of ability and industry. Wherever there have been organized "flying squadrons" of exceptional children, they have been collected from a large area into one building. There is no reason why the children with superior intellectual endowments should not be permitted and encouraged to save a considerable part of the secondary school period and at the same time to do the work better than their less fortunate brothers. Neither skipping a grade nor carrying an extra subject is satisfac-

[1] The plans followed by other countries are presented in Bulletin No. 45, 1914, of the United States Bureau of Education.

tory; but accelerant groups have proved economical in every respect. There are in all systems, too, children who learn slowly. If placed in classes formed regardless of the ability of the pupils, they inevitably retard the progress of the work, learn little themselves, and often fail of promotion. For such children repeating the work is far from satisfactory; an unpublished study recently made at Teachers College by John R. Riley of some eight thousand cases shows that after repeating and passing a course in which they had failed, 33 per cent of the children who continued the subject failed again the next semester. It may be assumed that at least a majority of those who were "passed" after taking the course a second time would have failed had they pursued the subject further. It is in no way fair to doom perhaps a fifth of our pupils to the loss of spirit and ambition by sending them to inevitable failure. It is often argued that slow-moving children need the stimulus of better workers in the same classes. This may be true if they move slowly through laziness; it is contrary to life in all of its other phases if it is due to lack of ability. Of the many provisions that have been made for children with varying ability to progress none seems better than that at the Manual Training High School of Indianapolis. There in certain subjects at least one group is formed of children whose record shows that they are able to do the work of three semesters in two, and at least one group who will need three semesters for the work that the majority of pupils do in two-thirds of that time.

The second claim, that the new organization makes easier the transition of pupils to the high school, has abundant theoretical support. The actual results depend, of course, on the completeness with which the details are adapted and administered. That the change between the elementary and the high school should be so sharp as it usually is permits of no general justification. The small understanding of what the subjects are that the high school presents; the anticipation of exchanging one teacher with whom there is a thorough understanding for several strangers; the prospect of leaving a near-by building in which he has had one room that he could call his home, and in which he has been a senior more or less lording it over children from one to seven years younger than himself; of leaving this comfortable building for another perhaps in a remote part of the city and there shifting hourly from strange room to stranger laboratory; the contemplation of the new atmosphere, the new ideals, and the new methods used—all these may stimulate the desire of some children to enter the high school; by pretty general testimony they terrorize many more. This larger group of children have "finished" reading, language, arithmetic, and other subjects traditional in the elementary school, and far too often they have no desire to enter another long campaign, the results of which have by common rumor been disas-

trous to so many friends who have tried it before. In all reports of attempts to "bridge the gap" by an earlier introduction of high-school subjects, the methods of teaching, or the larger responsibility of the secondary school, whether the introduction be into the junior high school or into the upper grades of the old organization, greatly improved results are claimed. It is difficult to measure such results; but it is reasonable that they should follow, and observation of a considerable number of schools that have made such changes as are noted above leaves a strong impression that they are generally achieved.

The third claim, that the junior high-school organization decreases elimination, is based in theory largely on the sharp break discussed in the preceding paragraph. There is no question that the elimination after the seventh, eighth, and ninth grades has been one of the greatest of the reproaches to our educational system. Consequently any plan that promises to retain children in school beyond these grades is worthy of the most careful consideration. Not only is the present break after the elementary school too sharp; it also coincides in perhaps the majority of cases with the onset of adolescence and the end of the period of education compulsory by law. It is claimed that the junior high school, which receives the pupil usually before the law permits him to leave school, should for two reasons hold him better to the end of the course and then increase the chances of his going on with his education. In the first place, it affords no convenient stopping point; and, in the second, it is organized and administered for the individual adolescent. Of the number of principals of junior high schools reporting, 107 declare that the organization does retain pupils in school better than the older plan, and 2 say that it does not. To the 3 who say frankly that they do not know what the effect on elimination is should probably be added all those who fail to answer the question. There are few published comparisons of the exact saving effected by the new organization. Supt. Francis in 1912 declared that in Los Angeles only 18 per cent of the pupils in the ninth grade of the junior high school failed, as compared with 42 per cent of those in the ninth grade of the high schools.

From a report[1] made to Supt. Francis by the principals of the intermediate schools for the year 1913–14 the following tables are taken:

[1] Elementary School Journal, XV, 361–377.

Pupils graduating from grades VIII A and IX A of intermediate schools.

	February, 1914.		June, 1914.		Total.	
GRADE VIII A.	*Number.*	*Per cent.*	*Number.*	*Per cent.*	*Number.*	*Per cent.*
Number of graduates	667		883		1,550	
Returned to the same school	525	78.7	665	75.1	1,190	76.7
Transferred to intermediate schools	29	4.3	14	1.5	43	2.7
Transferred to city high schools	52	7.7	69	7.8	121	7.8
Entered private schools	10	1.4	14	1.5	24	1.5
Out on account of sickness, travel, etc.	9	1.3	13	1.4	22	1.4
Left the city	15	2.2	57	6.4	72	4.6
Working	27	4.0	51	5.7	78	5.0
GRADE IX A.						
Number of graduates	335		479		834	
Transferred to city high schools	307	86.4	435	90.8	742	88.9
Entered private schools	7	1.9	7	1.2	13	1.5
Out on account of sickness, travel, etc.	9	2.5	8	1.6	17	2.0
Left the city	8	2.2	7	1.4	15	1.7
Working	24	6.7	23	4.8	47	5.6

Percentage of the pupils in various grades and years.

Years.	In kindergarten and grades I–VI.	In grades VII–IX.	In grades X–XII.
1896–97	84.4	13.3	2.6
1897–98	83.4	13.4	3.2
1898–99	83.0	13.8	3.4
1899–1900	81.7	14.2	3.4
1900–1901	83.2	13.7	3.2
1901–2	83.5	13.4	3.1
1902–3	82.8	14.3	3.0
1903–4	82.4	14.9	2.8
1904–5	82.3	15.2	2.7
1905–6	79.6	16.6	3.0
1906–7	79.8	16.6	3.4
1907–8	78.0	17.8	3.8
1908–9			
1909–10	75.8	19.5	4.8
1910–11	74.9	19.9	5.1
1911–12	74.2	20.0	5.4
1912–13	73.8	19.7	6.3
1913–14	73.3	20.3	6.6
1897–1903	[1] 83.2	[1] 13.7	[1] 3.1
1904–1911	[2] 79.0	[2] 17.2	[2] 3.6
1911–1914	[3] 75.8	[3] 20.1	[3] 6.1

[1] Average of the first 7 years. [2] Average of the second 7 years. [3] Average of the last 3 years.

Principal W. B. Clark, of the McKinley Intermediate School, Berkeley, furnishes data showing that since the establishment of the school 94.73 per cent of the pupils completing the eighth grade have entered the ninth, and 95.29 per cent of those completing the ninth grade have entered the tenth. Principal Preston, of the Franklin Intermediate School, Berkeley, reports that of the last seven classes completing the eighth grade under the old organization 40.53 per cent entered the high school, and that of the first six classes completing the eighth grade of the intermediate school there entered the ninth grade of the same school 65.53 per cent, not counting those who

were transferred from other buildings.[1] Principal Paul C. Stetson states that 86 per cent of the pupils in the eighth grade in the Grand Rapids junior high school last year entered the senior high school, as compared with 76 per cent of the eighth grades in the grammar schools of the city. In Evansville, Ind., according to Principal Ernest P. Wiles, only 56 per cent of the pupils completing the eighth grade in 1912 entered the high school, as against 84 per cent last year of the pupils in the junior high school.

The last of the four major claims for the junior high school is that it furnishes an opportunity for various reforms in instruction. This implies what has not been obvious in all discussions of the subject, that the junior high school is not a sure cure for all the ills in our educational system, but that it affords an opportunity for introducing reforms which might in a traditional situation be more difficult. It should be frankly admitted that the division of the 12 years of common schooling into two equal parts is not the one essential to educational advance; but in a new organization a course of study based on the newer principles of psychology, sociology, and economics, various provisions for individual differences, and especially an improved method of teaching can more easily be introduced. The governing principles of this improved method have been set forth in a number of the newer books—in none better perhaps than in John Dewey's "How We Think" and in his "Interest and Effort in Education." These principles are concretely applied in the "project method," which is being developed in the teaching of a number of subjects of secondary education. Marshall, Wright, and Field, for instance, have written "Outlines of Economics Developed in a Series of Problems"; the State of Massachusetts has issued bulletins such as "Agricultural Project Study," "Agricultural Project Study Bibliography," and "Project Study Outlines for Vegetable Growing;" and projects are introduced as exercises in several of the newer textbooks.[2] With a definite program for reform, a principal is likely to find marked help in a junior high school; without such a program, he would just as well, if not better, retain such an organization as he has.

OBSTACLES TO THE JUNIOR HIGH SCHOOL.

Among the obstacles to the organization of junior high schools are several that in time will be removed as inevitably as they arise, and several others that will remain, to be more or less offset by advantages. In the first group is the fact that a number of the States so define elementary and secondary education that there is no legal sanction for a third type composed of grades taken from each of the

[1] These last data are taken from the manuscript of a report in preparation on the intermediate schools of California by Commissioner Will C. Wood.

[2] See also Educ. Bull., 1914, No. 8.

others. This is the case in California; but there the obstacle is overcome by paying each teacher in the intermediate schools from funds designed for the grade or grades in which he does his work. Because of the growth and success of these schools in California, the legislature is likely to follow the recommendation of the commissioners of secondary and of vocational education and provide legally for the organization of separate schools consisting of grades 7 to 9 or 7 to 12. Inasmuch as the legal obstacle now existing in various States arose from the demands of another situation, there is likely to be small difficulty in securing, where it is necessary, legislation permitting junior high schools. Objections to the junior-high-school plan have in a number of cases come from principals of elementary schools that lose the two upper grades and from teachers of those grades who are not qualified for the junior high school and who "would regard the dignity of their position as lowered if put into lower grades." These objections have, of course, been silenced as the new organization has been completed; if they are not powerful enough to prevent the creation of a junior high school, they are likely to harm it less and less as the months pass. Another objection which is likely to be temporary, but which until it passes should be overcome by some compromise, is the fact that the organization of one or more junior high schools is likely to cause a longer walk for some of the children in both the upper and the lower grades. For some children in the upper grades the longer daily journey is likely to be more than offset by the shorter journey for a larger number; and for the youngest children Supt. Francis suggests that a primary school of the first, second, and possibly third grades be retained in or near the building to be devoted to the junior high school. Even in Los Angeles, where the new organization is most flourishing, there are still compromises, in the secondary as well as in the elementary schools.

One obstacle to the junior high school, as to almost any other educational improvement, is the likelihood that it will increase the budget. It is difficult to secure accurate information as to the cost of items of expenditure for schools; of 167 who, in answer to the questionnaire say that they have one or more junior high schools, only 30 report the items regarding cost; and 17 of these say that the junior high school costs more per capita (the amount spent for maintenance and operation divided by the average number of pupils attending) than the first six grades; 7 say that the cost is the same; and 6 qualify their answers. Comparing the cost with that of the high school, 10 say that it is the same, and 20 that it is less. Supt. Francis estimates that the per capita cost of the junior high school will be intermediate between that of the elementary school and that of the high school. The increased cost over the elementary school, though a real, is not a

logical objection, for, as Supt. Holland, of Louisville, Ky., has pointed out in his annual report, the distribution of funds between the elementary and the secondary schools is seldom determined by fundamental reasons. If, as is general, secondary education is likely to cost two or three times as much as elementary, it is only reasonable that the increase be gradual, instead of coming with great suddenness at the end of the eighth grade. A reason for increased cost that shows a real economy is suggested by the claim, which is, in all but a few cases, sound; that the junior high schools retain many children from one to four years longer in the school system. If, as is also claimed, probably with excellent reason, the number of "repeaters" is decreased, there is a credit partly to offset the increased debit.

Junior high schools are likely to be handicapped for the present by the lack of specially prepared teachers and by the inappropriateness of most of the existing textbooks. As the demands increase, however, they will unquestionably be satisfied. Thus far the teachers for the new unit have been selected from both the elementary and the high schools; under the California law this was imperative, and in other States it seemed wise to use the superior skill of the best grammar-grade teachers in those subjects of which they had a mastery and to introduce teachers from the regular high school for such other subjects as Latin and composite mathematics. But now teachers are in several ways being especially prepared for the junior high school. At least one of the largest colleges of education is offering courses leading to this end, and several cities independently are developing their own teachers. Rochester, N. Y., for instance, in anticipation of four junior high schools, has offered weekly work in the several subjects that will be introduced; from those successfully taking the courses, a number of the teachers for the new schools will be selected. From the 1,528 teachers reported in an incompleted tabulation as giving instruction in junior high schools (1,189 full time, 439 part time), 581 had previous experience in both elementary and secondary schools, 209 in secondary schools alone, and 642 in elementary schools alone. This means that only about 6 per cent of the teachers now in junior high schools were without experience when they were selected; nearly two-thirds of this small number came directly from college, the remainder from normal schools. Although data concerning the sex of the teachers were not requested, it is obvious from the reports that in the first two years of the junior high school there is a considerably larger proportion of men than is found in the seventh and eighth grades of the grammar school.

A more fundamental objection has been raised by Director W. C. Bagley (School and Home Education, Oct., 1914). Admitting that "the advantages are clearly on the side of a six-six organization

from the point of view of administrative expediency and to a large extent from the standpoint of educational theory," he doubts the wisdom of early differentiation, in that children may fail to get "a common basis of certain ideas and ideals and standards which go a long way toward insuring social solidarity—a basis of common thought and common aspiration which is absolutely essential to an effective democracy." "Stratified society," he thinks, may "encourage the development of social groups that can not understand one another because they lack a common basis of knowledge, ideal, and aspiration." This objection will have weight in proportion to the belief that the present educational organization results in social solidarity. Representing the other point of view is Prof. E. V. D. Robinson's statement (School Review, XX, 677) that "we can not forever go on sacrificing educational efficiency to a fetish of equality represented by a uniform course of study."

EXISTING JUNIOR HIGH SCHOOLS.

In reply to a questionnaire sent to superintendents of schools in every city in the United States of 2,500 population or over, there were received 977 replies. Of these, 843 have no junior high schools, 159 gave no reasons for having none; of the remaining 684, 232 have none because of a preference for the usual organization, 184 because of the probable increase in cost, 10 because the school system is too small, 58 because the buildings are unsuited or their teachers are not adequately prepared, and 232 because of "other administrative reasons." A number of the superintendents, as will be noted, gave two or three reasons.

One hundred and sixty-seven cities from which replies were received are said to have one or more junior high schools according to the definition used in the questionnaire, "A junior high school is here defined as a special organization of grades 7 and 8 or of 7, 8, and 9, to provide for greater differentiation of studies, better care of individual pupils, an easier transition to high school, longer school life, etc." To this number must be added 20 other cities listed in the report of the Commissioner of Education for 1912 (Vol. I, p. 155), and 6 others listed in the 1914 report of Commissioner Wood, of California, from none of which returns were received. This would make a total of 193 cities having junior high schools in 1913–14. By the definition used earlier in this report—

> A junior high school is defined as an organization of grades 7 and 8 or 7 to 9, whether housed with the senior high school or independently, to provide by various means for individual differences, especially by an earlier introduction of prevocational work or of subjects usually taught in the high school,

and, excluding the element of vocational work because of indefiniteness of data, the 167 cities are reduced to 57. How many of the 26 in the other two compilations would fall under the second definition

is not accurately known; however, they are included in the following list. This can not pretend to completeness or even to absolute accuracy; dependence had to be placed on the data, often incomplete, that were furnished in the replies to the questionnaire. Further study of the returns will doubtless cause modifications of the list.

An incomplete list of junior high schools.

Cities.	Junior high schools.	Grades in junior high schools.	Principals.			Housed—			Enrollment.	Promotion.	
			Same as of elementary schools.	Same as of high school.	Of its own.	With elementary school.	With high school.	Alone.		By subject.	Semiannually.
Florence, Ala.	1	7,8			Yes			Yes	90	No.	Yes.
Alameda, Cal.[1]		7,8	Yes			Yes					
Anaheim, Cal.[1]		7,8	Yes			Yes					
Berkeley, Cal.	4	7–9	Yes			Yes			1,600	Yes	Yes.
Los Angeles, Cal.	8	7–9			Yes			Yes	6,000	Yes	Yes.
Oakland, Cal.	3	7,8			Yes (2)			Yes (2)	100		
Palo Alto, Cal.	1	7–9			Yes			Yes	185		
Pasadena, Cal.		7,8			Yes			Yes	500	Yes	Yes.
San Diego, Cal.[1]		7,8	Yes			Yes					
San Francisco, Cal.[1]		7,8	Yes			Yes					
Santa Ana, Cal.[1]		7,8	Yes			Yes					
Santa Monica, Cal.	2	7,8	Yes		Yes	Yes		Yes		No.	Yes.
Santa Rosa, Cal.[1]		7–9		Yes			Yes				
Tulare, Cal.	1		Yes			Yes			165	Yes	Yes.
New Britain, Conn.	1	7,8			Yes			Yes	984	Yes. No.	No.
Norwalk, Conn.	2	7–9			Yes			Yes	850	(2)	
Macon, Ga.[3]		5–7			No.			No.			
Aurora, Ill.[3]		8			Yes			Yes			
Blue Island, Ill.	1	7–9	Yes						280	No.	No.
Decatur, Ill.	1	7,8			Yes			Yes	600	Yes	Yes.
Crawfordsville, Ind.[3]		7,8			Yes			Yes			
East Chicago, Ind.	2			Yes (1)	Yes (1)		Yes (1)	Yes (1)	211	Yes	Yes.
Evansville, Ind.		8			No.			No.	482		
Madison, Ind.	1	6–8			Yes			Yes	177		
Muncie, Ind.[3]		6–8			No.			No.		No.	Yes.
Richmond, Ind.	1	7,8			Yes			Yes	450	Yes	Yes.
Semour, Ind.	1	7,8		Yes			Yes		148	Yes	Yes.
Chanute, Kans.	1	7–9			Yes			Yes	450	Yes	Yes.
Fredonia, Kans.	1	7–9	Yes			Yes	Yes		170	Yes	Yes.
Fort Scott, Kans.	1	7,8	Yes			Yes			300	Yes	Yes.
Neodesha, Kans.	1	7–9		Yes		Yes	Yes		197	Yes	Yes.
Paris, Ky.	1	7,8	Yes			Yes	Yes			Yes	Yes.
Springfield, Mass.	6	7–9			Yes (3)			Yes (3)		Yes	Yes.
Worcester, Mass.	5	7,8		Yes		Yes				No.	Yes.
Flint, Mich.[3]		7–10			No.			No.			
Grand Rapids, Mich.	1	7–9			Yes			Yes	823		
Jackson, Mich.[3]		7–9			Yes			Yes			
Kalamazoo, Mich.	3	7–9			Yes			Yes			
	3	7,8			Yes			Yes			
Muskegon, Mich.[3]		8,9			No.			Annex			
Austin, Minn.	1	7A–9			Yes	Yes	Yes		246		
Crookston, Minn.[3]		7–9			Yes			Yes			
Faribault, Minn.	1	7–9		Yes			Yes		350	Yes	No.
Rochester, Minn.		7–9		Yes			Yes				
Aurora, Nebr.	1	6–8			Yes		Yes		170	Yes, No.	No.
Blair, Nebr.	1	7–9		Yes			Yes		200	Yes	Yes.
Lincoln, Nebr.[3]		7–9			No.			No.			
Concord, N. H.	1	7			Yes			Yes	80	No.	Yes.
Camden, N. J.[3]		7–10			No.			No.			
Hackensack, N. J.	1	7,8			Yes			Yes	370	No.	Yes.
Newark, N. J.[3]		6–8									
Somerville, N. J.		7,8	Yes	Yes		Yes	Yes			No.	No.
Charlotte, N. C.[3]		7									
Brockport, N. Y.		7,8			Yes	Yes	Yes			No.	No.
Dansville, N. Y.	1	7,8		Yes		Yes	Yes		85	Yes	
Hudson Falls, N. Y.	1	7,8			Yes	Yes			130	Yes	Yes.
Malone, N. Y.	1	7,8					Yes		246	Yes	Yes.
Olean, N. Y.	1	8		Yes			Yes		125	Yes	Yes.
Scotia, N. Y.	1	7,8		Yes			Yes		120	Yes	Yes.

[1] In list of Commissioner of Secondary Education for California; no returns to Commissioner of Education in 1914.

[2] By groups.

[3] In list of Commissioner of Education, 1912; no return in 1914.

An incomplete list of junior high schools—Continued.

Cities.	Junior high schools.	Grades in junior high schools.	Principals.			Housed—			Enrollment.	Promotion.	
			Same as of elementary schools.	Same as of high school.	Of its own.	With elementary school.	With high school.	Alone.		By subject.	Semiannually.
Silver Creek, N. Y.	1	7,8	.....	Yes	.....	.....	Yes	.....	78	Yes	No.
Solvay, N. Y.	1	7,8	.....	.....	Yes	.....	Yes	.....	200	No.	Yes.
Tonawanda, N. Y.	1	8	.....	Yes	.....	.....	Yes	.....	149	Yes	Yes.
Columbus, Ohio [1]	.....	7-9	.....	.....	Yes	.....	.....	No.	.....	.....	
Madisonville, Ohio	1	7,8	Yes	.....	.....	(2)	(2)	.....	.....	Yes	
Muskogee, Okla.[1]	.....	8	.....	.....	No.	.....	.....	No.	.....	.....	
Salem, Oreg.[1]	.....	8,9	.....	.....	Yes	.....	.....	Yes	.....	.....	
Chester, Pa.	3	7,8	.....	.....	Yes	Yes (1)	.....	Yes (2)	513	No.	No.
Lansdowne, Pa.	1	7-9	.....	Yes	.....	Yes	Yes	.....	180	{Yes, No.}	No.
Nanticoke, Pa.	1	7,8	Yes	.....	.....	Yes	.....	.....	205	No.	No.
Providence, R. I.[1]	.....	7,8	.....	.....	No.	.....	.....	No.	.....	.....	
Charleston, S. C.[1]	.....	8	.....	.....	No.	.....	.....	No.	.....	.....	
Brookings, S. Dak.	1	7,8	.....	.....	Yes	Yes	Yes	.....	137	Yes	Yes.
Lead, S. Dak.[1]	.....	8	.....	.....	No.	.....	.....	No.	.....	.....	
Clarksville, Tenn.	1	6,7	Yes	.....	.....	Yes	.....	.....	160	No.	Yes.
Union City, Tenn.	1	7-9	Yes	Yes	.....	Yes	Yes	.....	.....	No.	No.
Dallas, Tex.[1]	.....	8	.....	.....	No.	.....	.....	No.	.....	.....	
Houston, Tex.	3	7-9	.....	.....	Yes	.....	.....	Yes (2)	.....	Yes	Yes.
Murray, Utah	1	7-9	.....	.....	.....	.....	.....	.....	.....	.....	Yes.
Salt Lake City, Utah	2	7-9	.....	.....	.....	.....	Yes	.....	.....	Yes	
Burlington, Vt.	1	7,8	.....	.....	.....	.....	.....	Yes	.....	.....	
Roanoke, Va.[1]	.....	6-8	.....	.....	Yes	.....	.....	Yes	.....	.....	
Madison, Wis.	1	7-9	Yes	.....	.....	Yes	.....	.....	63	No.	No.
Rawlings, Wyo.	1	7,8	.....	Yes	.....	.....	Yes	.....	89	No.	No.
Laramie, Wyo.	1	7,8	.....	.....	Yes	Yes	.....	.....	130	Yes	Yes.

[1] In list of Commissioner of Education, 1912; no returns in 1914.
[2] Partly.

Because of the fact that they do not satisfy the details of the definition arbitrarily made, 114 cities that reported junior high schools are not included in the above list. They would all have been presented in a separate list with the facts concerning each had these been fully recorded in the questionnaire, but from the varying amounts of data returned it is obvious that all depart somewhat—a few of them greatly—from our conception of what a junior high school is. The following table shows the organization in which each of the 114 intermediate schools is included. In reading it, one must keep in mind that in a number of States there are usually only seven grades preceding the high school and that in a few cities there are nine.

Junior high school claimed, but not allowed by definition.

Number of cities.	Grades in the same building.	Number of cities.	Grades in the same building.
26	1-8	3	7-9
6	1-9	19	7-12
2	1-11	4	8
17	1-12	2	8-9
2	5-8	3	8-12
1	6-7	2	9
4	6-8	—	
2	6-12	114	
21	7-8		

In a number of cases schools were reported which, although not designated as junior high schools or intermediate schools, yet have the characteristics stated in our definition. Of these, only Springfield, Mass., which has at least three schools that by any definition are clearly junior high schools, has been included in the list. Of the following 83 cities which report that they offer algebra or foreign languages in one or two of the grades preceding the high school, 64 offer algebra, 21 Latin, 18 German, 3 French, and 2 Spanish. Some of them have segregated the upper grades; most of them have not. A much longer list could be added of cities that have departmental teaching, with or without segregation, in the upper grades. In all of these cities only a few changes would be needed in organization or in curriculum to secure a number of the additional advantages claimed for the junior high school.

An incomplete list of cities offering high school subjects in the upper grades.

Little Rock, Ark.
Malvern, Ark.
South Pasadena, Cal.
Grand Junction, Colo.
Middletown, Conn.
Plainfield, Conn.
South Manchester, Conn.
Stratford, Conn.
Bainbridge, Ga.
Moultrie, Ga.
Highland, Ill.
Highland Park, Ill.
Peru, Ill.
Garrett, Ind.
Kokomo, Ind.
Marshalltown, Iowa.
Abbeville, La.
Maynard, Mass.
Palmer, Mass.
Saginaw (east side), Mich.
Omaha, Nebr.
Carlstadt, N. J.
Cliffside, N. J.
Elizabeth, N. J.
Englewood, N. J.
Glenridge, N. J.
Lambertville, N. J.
Summit, N. J.
Albion, N. Y.
Babylon, N. Y.
Baldwinsville, N. Y.
Batavia, N. Y.
Canastota, N. Y.
Clyde, N. Y.
Cold Spring, N. Y.
Corning, N. Y.
Cortland, N. Y.
Fredonia, N. Y.
Hempstead, N. Y.
Hornell, N. Y.
Lackawanna, N. Y.
Little Falls, N. Y.
Lyons, N. Y.
Massina, N. Y.
Mechanicsville, N. Y.
Saratoga Springs, N. Y.
Walton, N. Y.
Cincinnati, Ohio.
Delaware, Ohio.
East Cleveland, Ohio.
Cleveland, Ohio.
Norwood, Ohio.
Urbana, Ohio.
Baker, Oreg.
Eugene, Oreg.
Ambler, Pa.
Berwick, Pa.
Bradford, Pa.
Bristol, Pa.
Danville, Pa.
Duryea, Pa.
Franklin, Pa.
Philadelphia, Pa.
Plainfield, Pa.
Pottsville, Pa
Westmoreland, Pa.
Wyoming, Pa.
York, Pa.
Cranston, R. I.
Westerly, R. I.
Abbeville, S. C.
Bennettsville, S. C.
Camden, S. C.
Easley, S. C.
Laurens, S. C.
Austin, Tex.
El Paso, Tex.
Georgetown, Tex.
Seguin, Tex.
Renton, Wash.
Milwaukee, Wis.
Neenah, Wis.
Sheboygan, Wis.

In addition to the number of cities that are said to have junior high schools, judged by either definition, 136 report that they intend to effect the new organization before the school year 1916–17, and 62 others before 1919–20. Besides these 198 cities of more than 2,500 population, 24 report that they "hope to" or "may possibly" estab-

lish junior high schools during the next few years. Even though a considerable percentage of these hopes may fail of fruition, the total of 222 cities seriously considering the plan is indicative of the extent of interest in the movement.

CURRICULA OF JUNIOR HIGH SCHOOLS.

To illustrate the wide range of studies offered by various junior high schools, the following representative curricula and a plan for organization are appended. This plan was made and partly applied by I. E. Goldwasser, formerly principal of one of the three intermediate schools in New York City. The curricula are from Los Angeles, which has by far outstripped all other cities in developing junior high schools; from the recommendation of the school survey of Butte; from the Wisconsin High School, which is controlled by the department of education of the University of Wisconsin; and from the Horace Mann School for Girls, Teachers College, Columbia University, a school that sends annually about 60 per cent of its graduates direct to college.

I. Organization Suggested for the New York City Type.[1]

The following plan of organization is suggested:

1. Secure from the principals of 6B schools a detailed statement of the special aptitudes and weaknesses of pupils entering the intermediate school. Classify new admissions on the basis of these reports so as to secure a certain degree of homogeneity in the composition of each class.

2. Institute tests of a general nature in the 7A grade, to determine general intelligence, manual skill, power of judgment in practical situations, etc. Tabulate all such findings for future reference. * * *

3. Beginning with 7A grade and extending through the 8A grade, courses should be established in electric-wiring, sheet-metal work, wood-turning, leather work, etc., for boys, and in dressmaking, millinery, embroidering, machine work, etc., for girls. Each course should extend over a period of nine weeks, thus affording a series of six courses. All pupils should be required to take each course in turn. Time schedules should be so arranged that at least eight hours a week may be devoted to the special courses. No attempt should be made to do more than acquaint the pupil with the fundamental simple processes underlying the various occupations.

4. Every pupil should be carefully observed while at work and a detailed record kept of his or her proficiency in the course. The work should be so planned as to make data available with regard to general adaptability, rather than to give skill in the occupation as such.

5. During the 8A grades, conferences should be held between parent, pupil, and teacher; the results of the tests and the records of the course should be carefully examined; and the pupil should be directed into the course for which he appears to be suited and in which all conditions combine to make it probable that he will become efficient.

It is in the 8B grades that the special training should begin. Small groups should be formed for each course. Intricate processes can not be taught, nor can work of a

[1] Psychological Clinic, VII, 205ff.

heavy nature be undertaken. One of the objects sought in the studies of the vocation bureau of Boston is stated thus: "To analyze the relation of aptitudes, interests, and habits to modern industrial demands, and thus lay an adequate foundation for a system of training regardful of social as well as economic needs." Whatever training is given should be along lines determined by some such study as this. The courses should be checked up constantly by the results of occupational investigations and must be organized with an ever-present ideal of sympathetic vocational guidance.

Pupils who wish to enter a classical high school with the idea of graduating should be enrolled at the beginning of the 8B grade in classes organized for such pupils. Special attention should be given to technical grammer, to the fundamental principles underlying arithmetical operations, to oral English with particular reference to the technique of correct speech, to penmanship, to the mechanics of written language, spelling, punctuation, etc., and to teaching pupils how to study.

Pupils who intend to complete the full course in a commercial high school should be enrolled at the beginning of the 8B grade in classes organized for such pupils. Special attention should be given to correct oral English as regards both the technique of speech and freedom from foreign idioms; to letter writing; to study of business forms; to an explanation of the principles underlying the various kinds of business to which arithmetic applications are made, such as commission, discount, insurance, etc.; to commercial geography, and to modes of manufacture.

Pupils who intend to complete the full course in a manual training trade high school should be enrolled at the beginning of the 8A grade in classes organized for such pupils. Special attention should be given to correct oral English as regards both the technique of speech and freedom from foreign idioms; to mechanical and free-hand drawing; to the fundamental arithmetical operations; to simple constructional geometry; to elementary algebra; to science; to modes of manufacture in the various industries; to shopwork.

Girls who intend to complete the full course in a technical high school should be enrolled at the beginning of the 8B grade in classes organized for such pupils. Special attention should be given to sewing (hand and machine), embroidering, with applications to dressmaking and millinery; to cooking and a study of food values; to home making in general. For the last-named work use should be made of the model flat built for this specific purpose.

This will leave a large number of pupils who, under ordinary circumstances, would leave the school at the end of the eighth year, or when they had attended a half year or more at a high school. During the year and a half from the beginning of the 7B grade the aptitudes of these pupils have been tested at the different occupational activities carried on; their general intelligence and their special powers have been carefully noted. A study should also have been made of their home conditions, the needs of the family, etc. The principal or competent teachers should have held interviews with the parents with a view of arriving at some knowledge of the pupil's aims and those of his family. The "vocational guide" should proceed to suggest what line of work the pupil should take up.

If there is still uncertainty as to what the ultimate choice is to be, the academic course should be recommended. For those intending to enter business the commercial course should be urged, while the industrial course should be recommended to those who wish to enter one of the trades.

II. Los Angeles Curriculum.

GENERAL COURSE.

Required Subjects.

Seventh Year.		Eighth Year.		Ninth Year.	
English	5	English	5	English	5
Arithmetic	5	History and civics	5	Physical training	2
Geography, B7	5	Physical training	2	Music or oral English	2
History, A7	5	Oral English, B8	2		
Physical training	1	Music, A8	2		
Music	2	Physiology and hygiene	2		
Drawing	2	Manual training:			
Penmanship	2	Girls—Cooking	2		
Manual training:		Sewing	2		
Girls—Cooking	2	Boys—Woodwork	4		
Sewing	2				
Boys—Woodwork	4				

Elective Subjects.

Select one of the following:		Select two of the following:		Select three of the following:	
French	5	French	5	French, German, Spanish, or Latin	5
German	5	German	5	Bookkeeping	5
Spanish	5	Spanish	5	Stenography	5
Latin	5	Latin	5	Algebra	5
Bookkeeping	5	Bookkeeping	5	Com. arithmetic	5
Stenography	5	Stenography	5	Ancient history	5
		Algebra	5	General science	5
		Drawing: Free-hand or mechanical	5	Select one of the following:	
				Manual training:	
				Girls—Cooking or sewing	5
				Boys—Woodwork	5
				Drawing: Free-hand or mechanical	5

Note.—Two languages may be selected only by permission.

COMMERCIAL COURSE.

Required Subjects.

Seventh Year.		Eighth Year.		Ninth Year.	
English	5	English	5	English	5
Arithmetic	5	History and civics	5	Commercial arithmetic	5
Bookkeeping	5	Bookkeeping	5	Bookkeeping	5
Stenography	5	Stenography	5	Stenography	5
Penmanship	2	Penmanship	2	Physical training	2
Geography, B7	5	Physiology and hygiene	2		
History, A7	5	Physical training	2		
Physical training	1				

Elective Subjects.

Pupils *may* select one of the following:		Select one of the following:		Select two of the following:	
French	5	French	5	French	5
German	5	German	5	German	5
Spanish	5	Spanish	5	Spanish	5
Music and manual training	6	Algebra	5	General science	5
		Oral English B8, and manual training	6	Algebra	5
		Music, A8, and manual training	6	Penmanship	5
				Music and manual training or oral English and manual training	6

VOCATIONAL COURSE.

Required Subjects.

Seventh Year.		Eighth Year.		Ninth Year.	
English	5	English	5	English	5
Arithmetic	5	Manual training:		Manual training:	
Geography, B7	5	Girls—Cooking	5	Girls—Cooking	10
History, A7	5	Sewing	5	or sewing	10
Physical training	1	Boys—Woodwork	10	Boys—Woodwork	10
Music	2	Drawing	5	Drawing	5
Drawing	2	Girls, free-hand.		Girls, free-hand.	
Penmanship	2	Boys, mechanical.		Boys, mechanical.	
Manual training:		Physical training	2	General science	5
Girls—Cooking	2	U. S. history	5	Physical training	2
Sewing	2				
Boys—Woodwork	4				

II. Los Angeles Curriculum—Continued.

VOCATIONAL COURSE—Continued.

Elective Subjects.

Select one of the following:		Select one of the following:		Select one of the following:	
French	5	French	5	Ancient history	5
German	5	German	5	French	5
Spanish	5	Spanish	5	German	5
Latin	5	Bookkeeping	5	Spanish	5
Bookkeeping	5	Algebra	5	Bookkeeping	5
Stenography	5			Algebra	5

III. Recommended by the Butte Survey Commission.

I. GENERAL COURSE.

[Intended primarily for those intending to go to high school and to enter the classical or scientific courses.]

Seventh Grade.

Required Subjects.	Periods per week.	Elective Subjects.	Periods per week.
English literature and composition	5	Select one of the following:	
U. S. history	5	Latin	5
Descriptive geography	5	German	5
Arithmetic	5	Spanish	5
Physical training	2	Bookkeeping and business arithmetic	5
Drawing	2		
Music	2		
Cooking (girls)	2		
Sewing (girls)	2		
Manual training (boys)	4		

Eighth Grade.

Required Subjects.	Periods per week.	Elective Subjects.	Periods per week.
English literature and composition	5	Select one of the following:	
U. S. history and civics	5	Latin	5
General science	3	German	5
Physiology and hygiene	2	Spanish	5
Drawing	3	Bookkeeping and business arithmetic	5
Music	2	Mathematics:	
Physical training	1	Elementary algebra, 8B	5
Cooking (girls)	2	Constructive geometry, 8A	5
Sewing (girls)	2		
Manual training (boys)	4		

Ninth Grade.

Required Subjects.	Periods per week.	Elective Subjects.	Periods per week.
English literature and composition	5	Select two of the following:	
Physical geography	5	Latin	5
Music or oral English	2	German	5
Physical training	1	Spanish	5
		(Two languages only by special permission.)	
		Algebra	5
		Ancient history	5
		Drawing, freehand or mechanical	5
		Cooking or sewing (girls)	4
		Woodwork (boys)	4

II. VOCATIONAL COURSE.

[Intended primarily for those not intending to go to high school.]

Seventh Year.

Required Subjects.	Periods per week.	Elective Subjects.	Periods per week.
Same as General Course.		Select one of the following:	
		German	5
		Spanish	5
		Bookkeeping and business arithmetic	5

Eighth Year.

Required Subjects.	Periods per week.	Elective Subjects.	Periods per week.
English literature and composition	5	Select one of the following:	
U. S. history and civics	5	German	5
General science	3	Spanish	5
Physiology and hygiene	2	Bookkeeping and business arithmetic	5
Physical training	1	Mathematics:	
Freehand drawing (girls)	5	Elementary algebra, 8B	5
Cooking and sewing (girls)	10	Constructive geometry, 8A	5
Mechanical drawing (boys)	5	Music	2
Manual training (boys)	10		

III. Recommended by the Butte Survey Commission—Continued.

II. VOCATIONAL COURSE—Continued.

Ninth Year.

Required Subjects.	Periods per week.
English literature and composition	5
Physical training	1

Elective Subjects.	Periods per week.
Select three of the following:	
German	5
Spanish	5
General world history	5
Physical geography	5
Music or oral English	2
Girls:	
Freehand drawing	5
Cooking or sewing	5
Elementary chemistry	5
Boys:	
Mechanical drawing	5
Elementary physics	5
Manual training	5
Both:	
Stenography	5
Typewriting	5
Business practice	5

IV. Curriculum of the Wisconsin High School, Madison.

Seventh Year.

Required.	Periods per week.
English (6) and spelling	5
Mathematics (arithmetic) (6)	5
History (American) and geography (6)	5
Music.	
Physical education.	
Elective	10 or 5
	20

Elective.	Periods per week.
A.	
German (6)	5
Latin (6)	5
French (6)	5
B.	
Sewing (6)	2½
Manual arts (6)	5
Cooking (6)	2½
Fine and industrial arts (6)	2

Eighth Year.

Required.	Periods per week.
English (5)	5
Mathematics (arithmetic) (5)	5
Science (5)	5
(General science) or—	
History (American) and geography (5)	5
Music.	
Physical education.	
Elective	10 or 5
	20

Elective.	Periods per week.
A.	
Latin (5)	5
German (5)	5
French (5)	5
B.	
Manual arts (5)	5
Sewing (5)	2
Cooking (5)	3
Fine and industrial arts (5)	2

Ninth Year.

Required.	Periods per week.
English (4)	5
Music.	
Physical education.	
Elective	15
	20

Elective.	Periods per week.
A.	
Latin (4) or (4A)	5
German (4)	5
History (ancient) (4)	5
Physiography (4)	5
Mathematics (algebra) (4)	5
Science (4) (biology, agriculture)	5
B.	
Manual arts (4)	5
Food study (4)	5
Fine and industrial arts (4)	3

IV. Curriculum of the Wisconsin High School, Madison—Continued.

Tenth Year.

Required.	Periods per week.
English (and method of work) (3)	5
Music.	
Physical education.	
Elective	15
	20

Elective.	Periods per week.
A.	
German (3) or (3A)	5
Latin (3) or (3A)	5
French (3A)	5
History (medieval and modern) (3)	5
Mathematics (plane geometry) (3)	5
Science (3) botany or physiology	5
B.	
Manual arts (3)	5
Textiles and sewing (3)	5
Fine and industrial arts (3)	2

Eleventh Year.

Required.	Periods per week.
English (2)	3 or 5
Music.	
Physical education.	
Elective	17 or 15
	20

Elective.	Periods per week.
A.	
German (2) or (2A)	5
Latin (2) or (2A)	5
French (2A)	5
Greek (2)	5
Mathematics (solid geometry, advanced algebra) (2)	5
Science (chemistry) (2)	5
History (English) (2)	5
B.	
Manual arts (2)	5
Advanced food study (2)	5
Fine and industrial arts (2)	3

Twelfth Year.

Required.	Periods per week.
English (1)	3
Ethics (1)	2
Music.	
Physical education.	
Elective	15
	20

Elective.	Periods per week.
A.	
German (1) or (1A)	5
Latin (1) or (1A)	5
French (1A)	5
Greek (1)	5
Mathematics (1) (½ year) (trigonometry)	5
American history and civics (1)	5
Science (physics) (1)	5
B.	
Manual arts (1)	2
Home problems (1)	3
Fine and industrial arts (1)	2

1. Spelling and penmanship receive special attention in the sixth and fifth classes, in connection with all written work.

2. Pupils who have already accomplished the required study of English for any class will be permitted to substitute therefor an additional elective study.

3. A foreign language may be begun any year of the school.

4. A six-year course and a three-year course are offered in German and in French. The three-year course is indicated by (3A), (2A), (1A). The courses differ in the organization of subject matter. Pupils beginning the study of German or French in or after the ninth year are enrolled in the (3A) course. A six-year course and a four-year course are offered in Latin.

5. Numbers in parentheses in the program of studies indicate the year in which the study is offered and correspond to the ordinal numbers used in designating the classes of the school.

V. Curriculum of the Horace Mann School for Girls.

Junior High School.		Senior High School.		
Subject.	Recitation periods.	Subject	Recitation periods.	Points.
First Year:		*Fourth Year:*		
English	6	English	4	4
Composite mathematics	3	Mathematics (algebra)	5	5
History (ancient)	4	Latin	5	5
Geography	3	Beginning German	5	5
French or German	4	Advanced French or German	4	4
Household arts	2	History (epochs of progress)	4	4
Music	2	Biology	4	3
Physical training	3	Household arts	4	2
		Fine arts	4	2
		Physical training	4	1
Second Year:		*Fifth Year:*		
English	5	English	4	4
Composite mathematics	3	Mathematics (geometry)	5	5
History (to 1800)	3	Latin	5	5
General science	3	Beginning French	5	5
French or German	4	Advanced French or German	4	4
Household arts	4	Advanced French or German	3	3
Fine arts	2	Ancient history	5	5
Music appreciation	2	English history	5	5
Physical training	3	Household science	5	5
		Household arts, textiles	4	2
		Household arts, foods	4	2
		Fine arts	4	2
		Physical training	4	1
Third Year:		*Sixth Year:*		
English	4	English	4	4
Composite mathematics	3	Mathematics (geom. and trig.)	5	5
History (modern)	3	Latin	5	5
Hygiene and sanitation	3	Advanced French	5	5
Latin (elective)	6	Advanced French or German	4	4
French or German	4	American history and civics	5	5
Household arts	4	Chemistry	5	5
Fine arts	2	Physiography	5	4
Physical training	3	Household arts, textiles	4	2
		Household arts, home management	4	2
		Fine arts	4	2
		Music appreciation	2	1
		Physical training	4	1

To graduate from the high school, a pupil must complete the required studies of the junior high school and take enough electives during the senior high school to make twenty points per year. One of these points each year must be in physical training.

Pupils of the high school who are making a serious study of vocal or instrumental music outside of school, under private tuition, will receive, under certain conditions, credit toward graduation.

Also members of the school orchestra and the school glee club, who regularly attend the rehearsals and public performances of these organizations, will receive a credit of one point.

CHAPTER VII.

HIGHER EDUCATION.

By Samuel P. Capen,
Specialist in Higher Education, Bureau of Education.

Contents.—General tendencies—New developments in State control of higher educational institutions: Montana, Kansas, Idaho—The New England College Entrance Certificate Board and the State departments of education—Classification: Recognition of the junior college; the Wisconsin, Missouri, and Virginia schemes; the Association of American Universities' approved list; the North Central Association's new policy—Surveys of higher educational institutions: The Carnegie Foundation's report on education in Vermont; survey of the University of Wisconsin; the study of institutions by their officers; study of costs at Miami; the survey of the Drexel Institute—Action of educational associations: The national conference committee on standards; the American Medical Association—Entrance requirements: Admission to the United States Military Academy on certificate; change in the requirements for New York regents' college entrance diplomas; modifications of Yale's entrance requirements—New foundations and reorganizations: Columbia University; the school of education of the University of Pennsylvania; cooperative agreement between Harvard and the Massachusetts Institute of Technology; the municipal University of Akron; Delaware College for Women; the Vanderbilt case—New tendencies in engineering education; their bearing on the arts curriculum—Resignations and elections.

GENERAL TENDENCIES.

The dominant tendency in higher education during the year under review is toward concentration. It appears in the developments affecting the external relations of colleges and universities to State authority. It is even more clearly evident in the changes relating to internal administration. The day of the academic promoter, of the inflation of values, is over. Expansion is still going on, but for the most part unaccompanied by the frenzied advertising so common in the past and encouragingly free from the optimistic confusion of prospects with realities. Indeed the developments within the year strengthen the conviction which has been ripening for some time that college and university education has outgrown the boom stage. It is now looking to its foundations and setting its house in order.

The extent to which colleges and universities have come under the sway of the trite but still potent slogan, "efficiency," is shown by a brief summary of the noteworthy happenings in the field of higher education in 1913–14. In three more States—Montana, Kansas, and Idaho—the administration of State institutions of higher education has been further centralized through recent legislative action, in Kansas and Idaho by the adoption of a single board of control. The movement in the direction of authoritative classification

of universities and colleges has gained added momentum. University and college surveys undertaken both by outsiders and by officials of the institutions to be examined have become increasingly frequent. There has been vigorous activity on the part of several voluntary associations that concern themselves with standards of entrance, graduation, and institutional equipment, some of which has crystallized in the form of recommendations that will affect educational procedure over considerable areas.

The problems dealt with by these associations have also been the subject of legislation by the faculties of a large number of individual institutions. Entrance requirements are still being modified. They have become more uniform in extent and more varied in content. The adoption of some form of the group system has been reported to the Bureau of Education by 21 institutions, undoubtedly only a fraction of the whole number of colleges that have taken this step.

In this connection it might be noted that, although no generally accepted philosophy of college education has yet emerged, the thinkers on the subject now appear to be divided into two camps. The first contains those who believe in the policy of which Harvard College has lately been the protagonist, namely, wide freedom in the choice of the major subject, prescription of a certain number of hours in each of the main fields of knowledge, and the absolute requirement only of English and modern languages. The other group represents a dogmatic opinion, to the effect that there must be a single curriculum best adapted to fit young men for efficient citizenship and community leadership. This view has long been embodied in the curricula of the higher educational institutions of the Catholic Church. Many Protestants are now beginning to advocate a like educational policy. A curriculum which will present the essentials of the humanities and the natural sciences, together with history, economics, and sociology, and will furnish the interpretation of all these subjects through the aid of philosophy has been suggested. The appearance of a somewhat similar program in the professional field of engineering education (see p. 188) presents evidence of the extent to which this conception has influenced educational thought.

In addition to these more fundamental matters, several institutions are experimenting with new types of vocational courses related to local industrial activities. The extension movement has spread rapidly. The idea, apparently destined to much greater prominence in future educational discussions, that it is the quality rather than the quantity of work done by a college student that counts toward effective education, has already received tangible recognition in a few institutions through the granting of extra credit for quality.

Several prominent institutions have been reorganized; at others new departments have been formed. All of these movements have been accompanied by the inevitable changes in the incumbency of the directive offices through death, resignation, and calls to other fields of service.

In the following discussion certain of the more prominent topics of this summary receive somewhat extended treatment.

NEW DEVELOPMENTS IN STATE CONTROL OF HIGHER EDUCATIONAL INSTITUTIONS.

MONTANA.

Previous reports have called attention to the overlapping and duplication among the higher educational institutions of Montana and have recorded the efforts of a former president of the State university to bring about a rational consolidation which would save the State both a considerable waste of money and the friction of institutional rivalry. A tentative step in this direction was taken, not without opposition, by the legislature of 1913, which passed an act organizing the State university at Missoula, the College of Agriculture and Mechanic Arts at Bozeman, the School of Mines at Butte, and the State Normal School at Dillon into the University of Montana. The control and supervision of the university is placed in the hands of the State board of education.[1] The board is empowered to appoint a chancellor of the university and to make whatever rules may be necessary to prevent unnecessary duplications of courses of instruction in the various component parts of the university. In July, 1913, the board voted to discontinue the courses in engineering at the State university at Missoula and to concentrate all of the engineering courses at the State College of Agriculture and Mechanic Arts at Bozeman, with the exception of the work in mining engineering, which is still carried on by the School of Mines at Butte. The dean and several members of the engineering faculty at Missoula were transferred to the institution at Bozeman.

KANSAS.

Allusion has also been made in previous reports to the efforts of Kansas to unite its higher institutions under one board. In 1913 the legislature finally passed an act bringing this about. The act creates a State board of administration charged with the government of the University of Kansas, the Kansas State normal schools, the Kansas State Agricultural College, the school for the deaf, and the school for the blind. The board consists of three members, not more than two of whom may belong to the same political party and not

[1] Control of State institutions of higher education in Montana has been vested in the State board of education since 1893.

more than one of whom may be an alumnus of any one of the educational institutions over which the board has control, nor more than one from any single congressional district. This board is appointed by the governor with the consent of the senate. Its members hold office for four years, their terms expiring at different dates. Each receives an annual salary of $3,500, together with an allowance for all traveling expenses incurred in the discharge of official functions, and is expected to devote his whole time to the duties of the board. The board elects a secretary, not one of its members, who, however, must be an experienced educator. It also may employ the clerical force necessary to conduct its business.

The authority of the board is extensive. It has the power to elect the presidents and treasurers of the institutions named in the act; to appoint professors, instructors, and all other employees, to fix the compensation of these officers and to determine their promotion, to make rules for the administration and government of the institutions, as well as to control their property.

It will be seen that no other State has vested such wide powers in so small a body of directors. While the board combines the functions of a board of control and an executive committee in a manner not quite in accord with the results of experience in other fields of public administration, nevertheless the efficacy of this type of management depends upon the quality of the board itself. The personnel of the Kansas board and the restraint which it has shown in the first 11 months of its existence augur well for the success of the Kansas experiment.

IDAHO.

Equally important and unusual is the act recently passed by the Legislature of the State of Idaho. This creates a State board of education which constitutes also the board of regents of the University of Idaho. The supervision and government not only of the university, the two State normal schools, and special schools of the State, but also of the whole elementary and secondary system, is placed in the hands of this board. The board consists of five members appointed by the governor, without reference to locality, party affiliation, or religion, one annually, for a term of five years. No member of the board can have been connected with any of the State educational institutions. The necessary personal and traveling expenses of the board are paid, and in addition each member receives an honorarium of $100. The board's functions, by the terms of the act, are purely legislative and advisory. As its executive officer it appoints, at such salary as it may designate, a commissioner of education, who is to be the supreme executive official of the educational department of the State. It also appoints such other specialists, assistants, clerks, or other executive officers as are deemed necessary, upon the recommendation of the commissioner. The act distinctly specifies

that the execution of the instructions of the board is to be left entirely to the experts that the board employs; the board's authority merely includes the determination of policies and the prescription of methods of procedure.

This separation of the legislative from the executive functions and the consequent freeing of the executive officer from petty and destructive interference is in accord with the best modern practice in administration. It has been tested and found admirably efficacious in the management of large corporations, municipal governments, and city school systems.

Through its executive officers the board is to have full charge of the public-school system of the State, the coordination of the different grades of education, the certification of teachers, the control of buildings, etc.

Unquestionably the most interesting feature of the act is the creation of the new office of commissioner of education, which is invested with large dignity and power and with opportunities for the exercise of educational statesmanship. The election of Dr. E. O. Sisson as commissioner gives promise of wise and constructive leadership. Idaho's experiment will be watched with great interest.

THE NEW ENGLAND COLLEGE ENTRANCE CERTIFICATE BOARD AND THE STATE DEPARTMENTS OF EDUCATION.

A recent protest of the New England State education officers against the methods and influence of the New England College Entrance Certificate Board gives public emphasis to certain very significant educational developments in that section. New England has been preeminently the stronghold of the principle of private as opposed to State control of higher education. Maine is the only State of the group having a State university of the same type as the State universities of the West and South. The colleges of New England, being neither tax supported nor managed by public officers, have determined the content and set the aims of higher education according to their own best judgment, without reference to the desires of the lower schools. They have, indeed, been in a position to force the secondary schools to give such courses and establish such standards as the colleges themselves have prescribed. The complaints of "college domination of the high school," which have occupied so prominent a place in educational discussions have perhaps most frequently referred to the colleges of New England. Yet it is only justice to record that this "domination" has been one of the chief influences in improving the public high school.

The power of the colleges in this direction is due primarily to the traditional prestige in New England of a college education and the institution that provides it. The stamp of the college's approval

on the secondary school of a given community has long been held by that community to be the final test of the school's excellence. Through bestowing their approval on the schools well equipped to fit for college and well taught, and withholding it from those ill equipped for this purpose and ill taught, the New England colleges have for many years been raising the standards of secondary instruction in these States. For the last 12 years a group of colleges, now 15 in number, has acted in conjunction and established a joint clearing house for the approval of secondary schools, known as the New England College Entrance Certificate Board. This board approves schools which send a certain number of successful candidates to the constituent colleges and which satisfy the board of the adequacy of their equipment. Failure on the part of a certain number of the graduates of any school to do well in colleges belonging to the board causes the board's approval of that school to be withdrawn.

A place on the approved list of the board has come to be a much-coveted honor. While the board makes no attempt to investigate all the schools of New England and only rates those that apply for approval, and even though a negligible fraction of students may go from a given school to a New England college, nevertheless the community feels that the standing of the school is not satisfactory unless it is on the board's list. The entrance requirements of the colleges composing the board are, however, confined to a rather limited range of subjects; judged by the standards of the whole United States, they are conservative; hence the courses which schools must offer in order to secure inclusion in the list are somewhat restricted.

Meanwhile the new movement in secondary education, which seeks to relate the work of the high school directly to the life of the community which it serves, has spread throughout the country. The high school has already become in many sections "the people's college." Its curriculum is now framed with reference to the large majority who do not, instead of the small minority who do, go to college. Practical subjects, vocational subjects, informational subjects not previously offered by colleges or allowed to count for college entrance, have been introduced into the high-school curriculum. Some of the State universities of the Middle West and West have met the movement more than half way. They have made their entrance requirements constantly more elastic and have granted entrance credit for a constantly increasing number of subjects. In fact, the articulation between the State university and the secondary schools is in some States so complete that a graduate of an approved high school who has taken any course of study recognized by the school authorities may enter without serious handicap *some* course in the State-supported college. The policy adopted by the State university is usually followed more or less closely by the private institu-

tions of the same State. A very superficial comparison of the entrance requirements imposed by the best institutions in the West with those of colleges of correspondingly high rank in New England and the East, indicates that the eastern secondary schools have not received the same encouragement toward adaptation to the popular demands by the colleges of these older sections.

Of late, however, the interests of the secondary schools in New England have received powerful support from another direction. The last decade has seen the increase in importance and authority of the State departments of education in these States. The New England departments of education have devoted especial attention to the problems of the high school. To study the needs of individual communities; to find the best method of devoting the cultural and practical resources of the high school to the community's service; to break down the conservative prejudice against the "new studies;" and to give formal public recognition to good high-school work, whether this prepares for college or not, may summarize in brief their program. In carrying out this program they find the policy of the New England College Entrance Certificate Board and the superior value attached by many communities or school committees to its approval in their way.

It is this dilemma that has led State Supt. Morrison, of New Hampshire, to urge the establishment of a State university in New Hampshire which shall serve New Hampshire as the University of Maine and the various State universities in other parts of the country are serving their States. These institutions have recognized, he says—

> that the high school should adapt itself to the work done by the lower schools for the great mass of the population, and that the colleges in their turn should adapt their work to what the high school has done. So only can we build for ourselves an educational system which shall be both rational and democratic * * *. We need an institution in which there shall be a place for every boy and girl who is able to make his way in college and which shall never dare to raise any artificial and arbitrary obstacles in the pathway of education. I believe that the natural solution of the problem and indeed the only solution is the development of a true State university in our midst.

Supt. Morrison is known to have the support and approval of the other heads of education offices in the New England States.

In a circular letter published October 1, 1914, Prof. F. W. Nicholson, the secretary of the New England College Entrance Certification Board, makes detailed reply to the criticisms of the board. He points out that as long as Harvard and Yale do not accept certificates and are not members of the board, the board can not be said to dominate high-school education in New England:

> The board is concerned with just one thing—the reliability of a certificate. It has nothing to say as to requirements for admission to college; these are determined by the colleges (members of the board) themselves.

The aim of the constituent colleges is to prevent the admission to college on certificate of students not prepared for college work. Students from schools not on the board's list of approved schools may always enter any of the colleges by passing the entrance examinations.

CLASSIFICATION.

There is evidence of a general change of attitude toward the vexed question of classification of colleges. The procedure of the administrative officials who have undertaken to classify is becoming more empirical. The officers of the classified institutions, on the other hand, are growing decidedly less suspicious. The two parties are coming to see the identity of their interests and to avoid, on the one side, the inscrutable and inexorable demeanor of a vehmic tribunal, and, on the other, the supersensitiveness to unfavorable criticism which has been common in the past. The inadequacy of any hard and fast definition to describe the great variety of colleges has become increasingly apparent. Every definition must be applied with discretion and should be elastic enough to allow certain deviations from strict orthodoxy. Classifying agencies are recognizing this. There is also a growing conviction among college executives of the ultimate value of honest and restrained statements concerning the equipment and performances of their institutions. They are beginning to perceive the benefits that will accrue from the recognition of the defects of these institutions and to appreciate the fact that classifying bodies are friendly and not hostile forces.

The question of classification now appears to have become by common consent the question of *classifications*. Colleges can, and doubtless should be, classified on several bases; in other words, with respect to their qualifications and equipment for various different purposes. The principal efforts at rating colleges within the year seem to point to a tendency to limit future classifications to distinct and homogeneous groups of institutions, or to specified categories of college work. This tendency is illustrated in the efforts toward classification mentioned in the following paragraphs.

RECOGNITION OF THE JUNIOR COLLEGE.

State education officials in three States, acting under authority of law, have taken steps toward the recognition of the junior college and have suggested tentative working definitions of this type of institution.

THE WISCONSIN, MISSOURI, AND VIRGINIA SCHEMES.

As noted in the report of the Commissioner of Education for 1912, Wisconsin, in the preceding year, authorized its normal schools to give two years and no more of college work. The college depart-

ments of these normal schools were thus in effect made junior colleges. The University of Wisconsin has now formally provided for their affiliation with it on such terms that normal-school students or graduates who were prepared to enter the university at the time of entering the normal school, and whose studies have been approved by the university faculty, may be transferred to the university with full credit. Thus the graduates of these normal schools receive junior standing in the colleges of letters and science, agriculture, and engineering, and are admitted to the law school or the medical school.

In Missouri seven institutions giving part of the four years' college course are affiliated with the State university as junior colleges. The university has issued detailed regulations for this affiliation, the most important of which are these:

1. The requirements for admission to the work of the affiliated college must be the equivalent of those of the college of arts and science in the University of Missouri (15 units).

2. If a preparatory school is maintained in connection with the college, its work must be approved by the University of Missouri.

3. The course of study in the college must be 2 years in length and the college year 36 weeks.

4. For graduation from the college the student must complete satisfactorily 60 semester hours of work, which must be the equivalent of that required in the first 2 years in the college of arts and science in the University of Missouri, including the courses prescribed for these years by the university.

In addition, there must be adequate library and laboratory equipment, and a sufficient number of well-trained teachers devoting themselves to specialties to insure work of college grade.

The State Board of Education of Virginia, in its circular of information for 1914, concerning the certification of teachers, provides for granting a junior college certificate to—

> a graduate of a registered institution in Virginia which does not comply fully with the definition of a college, but which offers an approved four-year course at least two years in advance of the standard four-year high school, with one year's work of college grade in English, history, mathematics, and science.

This regulation obviously serves as a very general and tentative definition of a junior college.

Much more thoroughgoing and specific prescriptions for the recognition of the junior college were adopted by the Virginia Association of Colleges and Schools for Girls, in June, 1913. The essential parts of the association's definition are:

> That any school desiring rank as a junior college (*a*) shall agree to prefix the word "junior" when applying to itself the term "college"; (*b*) shall have at least five instructors, each devoting himself to a single field; (*c*) shall fully meet the college entrance requirements for courses and examinations * * *; and (*d*) shall within

five years present at least three students who gain by examination advanced standing of not less than 2 years (30 hours) at some one of the standard colleges asked to cooperate with us in this process of standardization, namely, Vassar, Smith, Goucher, Wellesley, and Mount Holyoke.

The committee on standardization, which formulated these regulations for the association, was continued and has been very successful in arranging for close and cordial cooperation with the standard women's colleges just mentioned in testing the work of the junior colleges of Virginia. The action of the association, therefore, promises to have considerable influence in determining the sphere and the range of the junior college not only in Virginia, but in other States as well.

THE APPROVED LIST OF THE ASSOCIATION OF AMERICAN UNIVERSITIES.

The recommendation by the Association of American Universities of a group of American colleges and universities to the Prussian *Kultusministerium* was in effect a classification of undergraduate institutions on the basis of their fitness to prepare students for graduate study and research. The motives that actuated the association in recommending this list form an important part of the history of international educational relations. They are summarized briefly in the association's report for 1913.

In 1905 the University of Berlin memorialized the Association of American Universities to the effect that its faculty recognized every bachelor's degree acquired at an American university as the equivalent of the German *Maturitätszeugnis*. But the construction subsequently placed by the University of Berlin upon this statement restricted its provisions to the institutions included in the Association of American Universities. The action of the University of Berlin was afterwards imitated by other Prussian universities and the universities of Holland. In consequence only those American students who had won their bachelor's degrees from institutions represented in the association were allowed to matriculate at Prussian and Dutch universities.

Feeling that such discrimination was unjust to the other collegiate institutions of the United States, the association appointed a committee to consider and report a remedy. The committee soon discovered that the task of making a list of the colleges of the country whose degrees might be regarded by the association as of equal value with the college degrees conferred by the universities embraced in its membership was impossible, with such machinery as the association itself had at hand. It therefore recommended that a list of accepted institutions be compiled to consist of the three following groups:

(1) The members, present and future, of the Association of American Universities.

(2) Those other institutions on the accepted list of the Carnegie Foundation for the Advancement of Teaching.

(3) Those institutions which are not included in the accepted list of the Carnegie Foundation because they are in some sense sectarian, as defined in the terms of gift of the fund, but otherwise conform to its standards of acceptability.

At the request of the committee, the Carnegie Foundation furnished the names of the institutions mentioned under the last two headings. Including the 22 members of the association, 119 colleges and universities were named. The association then passed the following resolution:

Resolved, That this association recommend to the Prussian *Kultusministerium* and the corresponding ministries of the other German States that for the present there be recognized as the equivalent of the German *Maturitätszeugnis* not only the bachelors' degrees conferred by the members of this association, but also the degree of those other American colleges and universities which are on the accepted list of the Carnegie Foundation or which are certified by this foundation as of equivalent standing but excluded from its accepted list for other than educational reasons.

THE NORTH CENTRAL ASSOCIATION'S POLICY.

The most radical and suggestive proposal with respect to classification offered within the year was that made by the commission of the North Central Association of Colleges and Secondary Schools and adopted by the association at the meeting held in Chicago, March 21, 1914. It will be remembered that the association several years ago set up certain standards for colleges and universities which constituted a very detailed and specific definition of an acceptable college[1] under 12 heads (including admission and graduation requirements, faculty training, financial stability, equipment, and curriculum). The definition gained wide circulation not only in the territory of the association, but throughout the country. Some of its provisions were embodied in subsequent attempts elsewhere to define a standard college. In 1913 the commission reported a list of 73 colleges in the territory of the association which conformed to the standards, and hence were eligible for membership in the association.

The 1914 report alluded to above recommended a total change in the policy of the association. Because of the novelty of the proposal, certain paragraphs are here quoted verbatim:

The present standards for colleges and universities were evidently drawn up with the college of arts and science as the chief if not the sole object of consideration. The association obviously has before it two possible courses. The present standards can be maintained and strengthened, when membership in the association will be limited; or a policy of expansion can be adopted which will necessitate a modification of the standards and a thorough revision of the approved list.

The small, exclusive membership seems at first sight to have certain advantages. The relation to high schools seems to be relatively simple. The association promises

[1] See Rep. of Commis. of Ed., 1913, Vol. I, pp. 20–21.

to be fairly homogeneous. The standards are relatively easy to enforce. On the other hand, it is to be noted that even the present small list includes institutions of widely different character. For example, about one-half of the institutions on the approved list pay their faculties less than $30,000 per annum, while at the other end of the list are institutions paying their faculties $500,000 or more. These figures show that in range of courses and in point of size the institutions now on the list differ very widely, so that the effort to keep relations within the association simple can hardly be expected to succeed.

All these considerations led the commission to the recommendation which it now submits, that the list of approved institutions be enlarged. It is recommended that an alphabetical list of all institutions which continue the education of students beyond 15 units of high-school work be prepared. Following the name of the institution shall be set down an exact statement of certain facts, such as the following:

(1) Number of the faculty in independent charge of classes.
(2) Number of faculty with the degree of doctor of philosophy.
(3) Number of matriculated students.
(4) Number and type of degrees granted in course.
(5) Number of elementary courses of instruction actually given.
(6) Number of advanced courses.
(7) Number of professional courses.
(8) Expenditure for salaries.
(9) Hours of class instruction required of members of the faculty.
(10) Material equipment.

This list shall then be submitted to the commission and the commission shall determine its standards with the facts before it. Thus the commission shall determine the limits permitted in each of the categories above described. Furthermore, the categories which are deemed essential to admission to a classified list shall be determined, and the list shall then be made up automatically, subject to annual review. The approved list and the facts which it presents shall be published.

The commission does not, it will be observed, offer in this plan any definition of a junior college, nor does it distinguish between colleges and universities, or colleges and normal schools. It recommends rather a comprehensive formula, including all grades of institutions. It anticipates that the result of the adoption of this plan will be the ultimate development of a system of rating which may be used for high schools as well as for higher institutions.

SURVEYS OF HIGHER EDUCATIONAL INSTITUTIONS.

Several important investigations in relation to the organization and management of higher institutions have been undertaken or completed during the past year. Reference was made in the last report to the establishment by Mr. Andrew Carnegie, in January, 1913, of a division of educational inquiry in connection with the Carnegie Foundation for the Advancement of Teaching. The division is provided with an endowment of $1,250,000, and under the terms of the gift is instructed to "carry on investigations concerning universities, colleges, professional schools, and systems of education generally," and to make public such of its findings as the trustees of the Foundation may think valuable.

THE CARNEGIE FOUNDATION'S REPORT ON EDUCATION IN VERMONT.

The opportunity was offered for the Foundation to put this new endowment to important use in an educational investigation more

comprehensive than any before undertaken. A commission created in 1912 by the Legislature of Vermont "to inquire into the entire educational system and condition of the State," requested the Carnegie Foundation to make a study of the educational situation in Vermont. The request was accepted, and the study began in March, 1913. In addition to its own officers the foundation enlisted the services of members of the staffs of the University of Wisconsin, Columbia University, Harvard University, and the United States Bureau of Standards. A report was submitted to the commission and published by the foundation early in 1914, under the title "Education in Vermont." It is so notable a document that some account of that portion of its contents relating to higher education is appropriate.

The inquiry attempts to give to the people of Vermont a picture of the educational system of the State as it exists to-day, with only so much history as is necessary to explain the present status of various educational agencies. Underlying the whole study, however—in fact, basic to its recommendations—is a careful analysis of of the economic situation and needs and of the social constitution of the State itself. Upon this background the report has projected a view of education in Vermont as "one organism embracing the whole educational system from the elementary school to the university."

The commission, at whose instance the study was made, had not rendered its report to the legislature at the completion of the year reviewed in this chapter. It is therefore too early to say whether the recommendations of the Foundation will form the basis of legislative action. The most startling of these recommendations relate to higher education.

After pointing out that the chief problem with which the State is concerned is the development of its elementary and secondary schools, and affirming that the proper solution of this problem entails (1) the reorganization of the elementary and secondary curricula to meet the vocational needs of the community; (2) provision for powerful and constructive central educational administration; and (3) more and better agencies for the training of teachers for elementary schools, the report makes the following comments on higher education:

> There are three institutions (University of Vermont, Middlebury College, Norwich University) that for years have been obtaining from the State treasury larger or smaller appropriations. In recent years these sums have grown rapidly, until at present the three colleges are receiving from the State something over $100,000 annually. In addition the State receives from the Federal Government for educational purposes $88,000. * * *
>
> The existing relation of the State to these colleges ought to cease. * * *
>
> The State should appropriate no money whatsoever to higher education until its duty toward the public schools has been fully met. In our judgment, the cause of higher education in Vermont would not suffer if it received no State aid in the future.

This opinion is defended in the two paragraphs of the report which follow:

> There are only two consistent policies which a State can pursue toward institutions of higher education. It can give its support entirely to the elementary and secondary school work and leave higher education to be supported by public philanthropy. This is the situation in most of the New England States. It is clear-cut; it is consistent; it is defensible both on the ground of public policy and of education. The other attitude is that assumed by the States of the Central West, of the far West, and of the South, namely, that higher education is likewise a function of the State and is entitled to State support, but that the State will appropriate money to no institution that it does not own and control. This policy is also clear-cut and defensible, both educationally and on the ground of a wise public policy.
>
> For Vermont the adoption of this second policy is encumbered with evident difficulties; Vermont can not possibly support a State university that seeks to cover the ordinary field of undergraduate and professional instruction. It is no burden for States like California, Illinois, Minnesota, or Wisconsin to appropriate $2,000,000 or even $5,000,000 annually to their State universities. The entire annual income of the State of Vermont is but little more than the sum which each of these States gives annually to its university. The most that the State of Vermont could possibly do, if it selected one of these subsidized institutions to become its State university, would be to help out the resources derived from the friends of education and of the institution itself for the development of certain restricted fields of education which were deemed especially important to the State. Under such circumstances, however, it is fairly certain that State aid would check and eventually dry up the springs of private giving, and prove in the end an embarrassment rather than a help to higher education.

These sections of the report have met with vigorous denial from President Thomas, of Middlebury College, in a statement in behalf of Middlebury College made to the commission to investigate the educational system and conditions of Vermont. After indorsing the recommendations of the Foundation which deal with the development of the elementary-school system and the advisability of strong centralized control, President Thomas takes issue with the foundation on the question of State support for higher education. He declares:

> The assertion of the report is that the State is shut up to the dilemma either of absolute ownership and control of a State university, or complete severance from higher education. This is a dictum simply; it is not argued or defended. It appears to have been simply assumed from the practice of the Western States.

To show that other policies than the two suggested in the report are often successful, he cites the cases of cooperation between the State and privately supported institutions in New York, Pennsylvania, Maryland, Massachusetts, and Rhode Island. He calls attention to the mingling of State contributions and private benefactions in the support of the libraries, hospitals, and other public institutions of Vermont. He outlines at some length the English practice of combining public and private philanthropy in the support of higher education, and concludes this part of the argument with the remark: "A good many practices are practical and sensible in a given environ-

ment which are not to the taste of men who have become accustomed to a different environment."

President Thomas bases these criticisms on the fact that the report—

> contains no study of the financial resources of Vermont, no comparison of the amount Vermont is expending for education, higher and lower, with the expenditures of other States of about the same income. It has simply assumed without examination that Vermont has a fixed amount to expend on education and is likely to have no more.

He says that, even with the added appropriations necessary to support such an improved administration of the public schools as is recommended, the increasing resources of the State would still leave sufficient to give substantial aid to higher education. As a remedy for the harmful political activity which the report claims has characterized the efforts of Vermont colleges to secure appropriations in the past, he proposes that the new State board of education should be authorized to include in its budget of educational expenses such appropriations for the work of the colleges as may seem wise. The board could properly distribute the emphasis between the various parts of the educational system so that the higher institutions would not be favored beyond their deserts.

SURVEY OF THE UNIVERSITY OF WISCONSIN.

Some years ago a State board of public affairs was created in Wisconsin. The function of this board was to study and report upon the activities of the various public organizations which drew their support from the State. It recently ordered a survey of the University of Wisconsin, and appointed Mr. William H. Allen, of the New York Bureau of Municipal Research, and Mr. E. C. Branson, of the University of North Carolina, as directors of the survey. These gentlemen began their work in May, 1914. They have issued a series of carefully prepared questionnaires to the faculty members, alumni, and present students of the university. It is the avowed purpose of the survey to discover, by means of these questionnaires and by the personal observations of the directors, the answers to the 12 following suggested questions:

1. What, if anything, is the University of Wisconsin undertaking that the State as a whole does not wish it to do?
2. What, if anything, is the university failing to undertake which the State wishes it to do?
3. Is the university doing well enough what it does?
4. Is it doing inexpensively enough what it does?
5. What parts of its work, if any, are adequately supported?
6. What parts of its work are out of proportion—too large, too small—to its program as a whole?
7. Is the State's support of the university proportionate or disproportionate to State support of other public educational activities?

8. Is the university's business management—in policy, planning, purchasing, supervising, checking, and reporting—adequate and efficient?

9. Does the legislative policy in dealing with the university and other educational activities reflect adequate information and efficient use of information?

10. What is the university's relation with, and influence upon, the rest of the State's system of public education?

11. What are the standards of living, social and economic, in the university?

12. What not-yet-met needs of the State which the university might meet and what opportunities for retrenchment or increased efficiency should be reported to the next legislature?

THE STUDY OF INSTITUTIONS BY THEIR OFFICERS.

The scientific self-survey tendency which may be said to have started with the Oberlin survey of 1908–9, commented on in previous reports, has gained considerable momentum. Each year sees an added number of progressive institutions undertaking to analyze some of the vital processes of college administration or teaching. This is one of the most important movements relating to college management. Through the multiplication of such partial surveys we shall perhaps eventually develop a real science of college administration. Two especially suggestive studies have been made within the past year.

STUDY OF COSTS AT MIAMI.

President R. M. Hughes, of Miami University, Ohio, read before the Ohio College Association, April 10, 1914, a paper on the per capita cost of instruction in the college of liberal arts as a measure of the efficiency of college administration. The study presents several interesting and original points of view which are supported by an effective marshaling of the figures relating to the cost of instruction at Miami and other institutions.

President Hughes discusses the question whether it is possible to establish a per capita cost of instruction that may serve as a standard. Per capita cost is found to be a function, first, of the number of student hours per instructor (a student hour is the class instruction of one student one hour for a week), and, second, of the average salary of the instructor. How many student hours should an instructor teach a week? In all previous discussions of the load imposed upon teachers the number of the class hours a week has been emphasized; yet, if one instructor (of Greek, let us say) teaches 15 hours a week with an average of 6 students in each class, and another teaches the same number of hours with 25 students in each class, the second is giving more than four times as much instruction as the first. As a matter both of justice and good administration, the student hours should be distributed among instructors as evenly as possible. President Hughes proposed 275 as a fair load in student hours, this figure being approximately the average of those suggested by members of the Miami faculty. An analysis of the actual loads

in student hours carried by members of this faculty showed a range of from 86 to 417, and an average of 214. With an ideal distribution of the teaching load, Miami could have cared for one-fourth more students than were actually taught and still have relieved certain members of the staff of an unreasonable burden. Although it was impossible to get the same accurate figures of the class enrollment from other institutions, such evidence as appears led President Hughes to believe that conditions at Miami are fairly typical.

The other factor upon which the cost of instruction depends is the average salary of an instructor at Miami; it reaches the rather high figure of $1,718 a year. The number of weeks in the year, 36, multiplied by 275 student-hours, produces approximately 10,000 as the reasonable average load of student-hours a year for each instructor. If each instructor at Miami should teach 10,000 student-hours a year, the cost of instruction per student-hour would be 17.18 cents; at this rate the total cost of instruction per student per year would be $91.77. Actually it costs $140 a year for the instruction of each student, an excess of $48.23 per student over the theoretical cost. President Hughes comments:

> If our administration were perfectly efficient and could maintain the college effectively and bring the average load up to the theory, there would be the difference between the actual cost and the theoretical cost, which might be divided in additional salaries among a smaller faculty. Or, assuming, on the other hand, that the salaries are sufficiently high, a larger number of students could be educated for the same amount of money.

To show that this discrepancy between the theoretical cost of instruction (using 275 student-hours as the student load for each instructor) and the actual cost is not an idiosyncrasy of Miami, President Hughes presents some figures relating to five small colleges of high standing and five of the largest universities in the country. From these it appears that an even greater divergence is not uncommon. President Hughes's conclusion is—

> that some cooperation between faculty and administration in securing a curriculum and a schedule and general administration of the academic work of the colleges would make a marked increase in the *average* student-hours per week taught by each instructor, without overloading any, and a corresponding increase in salary.

THE SURVEY OF THE DREXEL INSTITUTE.

The desire to know the facts about the conditions, both financial and educational, existent during an interregnum of the presidency of the institution led the trustees of the Drexel Institute, in Philadelphia, to seek the advice of an engineer experienced in the investigation of business and engineering operations, Dr. Hollis Godfrey. Dr. Godfrey's report, submitted to the trustees in the fall of 1913, presented in addition to an analysis of the existing difficulties and of the possibilities of the institution so satisfactory a plan for its reor-

ganization and future development that the trustees offered him, and he accepted, the presidency. Although the report has not been published, the bureau is able, through the courtesy of the officials of Drexel Institute, to indicate briefly some of its more striking recommendations.

All are based upon a study of the educational and geographical field of the institute. This study answers the questions: What area does and can Drexel Institute serve? What classe of students does it and should it serve? What other institutions are offering or may offer similar lines of training? What courses now offered by Drexel Institute are clearly unprofitable for it to maintain, in view of the limited area of its constituency and the similar opportunities furnished by adjacent institutions? What courses should it emphasize and seek to perfect?

Among other recommendations made on the basis of this study was one that the institute, giving work of college grade, should obtain the right to grant degrees.

In support of the recommendation the report calls attention to the change that has come about in the status of the technical school graduate in the last two decades. Twenty years ago the field of engineering operations was occupied chiefly by small concerns. It was undermanned, and employers were glad to get technically trained persons with or without a degree. Now the typical employer is the large corporation. Both corporation and governmental bodies have generally adopted what amounts to a civil-service test, often open only to degree holders, and there are more degree holders, both actually and relatively, than in the early nineties. Graduates of Drexel Institute, having no degrees, find themselves now at a disadvantage with graduates of other technical schools in applying for positions. Similar conditions have recently led the Armour Institute, of Chicago, and the Carnegie Institute, of Pittsburgh, to grant degrees.

After having gained the right to grant degrees (it has since been secured), the report goes on to say that the Drexel Institute should so concentrate its resources and perfect its organization as to conform eventually to the following definition:

> Drexel Institute is composed of a school of engineering for men, a school of domestic science and arts for women, and a secretarial school for women, meeting the needs of the high-school graduate of Philadelphia and of the commuting area around Philadelphia by means of high-grade technical instruction in the lines mentioned above, and providing special technical courses of less than college grade for those irregularly trained men of mature years who can not obtain instruction of this type in the high schools.

Believing that the curtailment or abolition of some departments of the institution to meet this prescription should be done gradually,

the report offers valuable recommendations in tabular view concerning the external and internal policies and administration. In the case of each school or department these recommendations were based upon a study of the expenditure of the school for five years compared with the enrollment for five years.

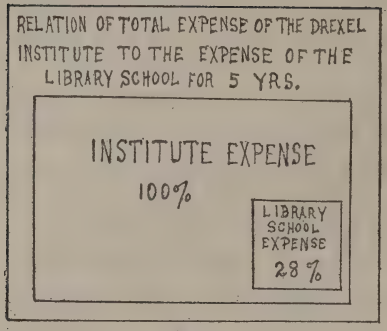
In the case of the library school this study involved the positions open for five years in the general field of library practice, the receipts from tuition and the cost of salaries and disbursements, the total numbers in the school for five years, and the numbers from the metropolitan district of Philadelphia for five years. This last figure was of special importance, as the institute in all its publications gives notice that a boy or girl from greater Philadelphia will be given a preference over a boy or girl from outside greater Philadelphia. The accompanying charts present graphically the facts which the study of the library school disclosed. They serve also as an admirable illustration of this method of reporting significant college statistics.

Finally, the report takes up the questions of costs and shows how the deficit of the past years may be avoided by a concentration of departments, scientific budget making, and more equal distribution of student-hours among instructors in the manner suggested by the Miami study cited above. The officers of the institute are now putting into practice as rapidly as possible the recommendations embodied in this constructive report.

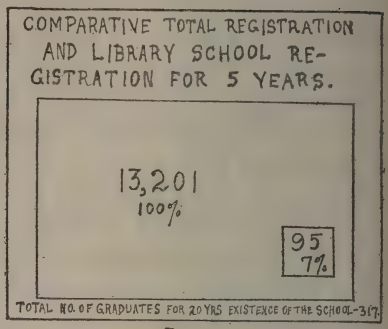
ACTION OF EDUCATIONAL ASSOCIATIONS.

The wide adoption of the "unit" as a measure of secondary work and college preparation has helped to make possible the establishment of definite and intelligible standards for graduation from the high school and for admission to college. The "unit" is, however, a quantitative measure, with only incidental reference to quality. This appears to be its chief defect.

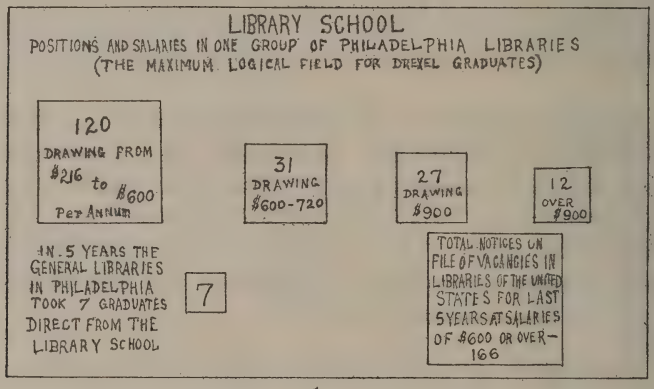
Certain difficulties in its application have become evident already. There is, on the one hand, a tendency to overemphasize the time aspect of the unit, to regard it as so many minutes of school work. The commonly accepted definition which states that the "unit represents a year's study in any subject * * * constituting approximately a quarter of a full year's work," and the further explanations that this assumes "that a period is from 40 to 60 minutes in length and that the study is pursued for four or five periods a week," are intended to guard against a strictly mathematical interpretation of the unit. Nevertheless, the temptation to measure all school work in terms of minutes still gains many victims. Indeed, some of the critics of the unit itself as a standard of measurement complain chiefly of its vicious flexibility and lack of temporal precision.


RELATION OF TOTAL EXPENSE OF THE DREXEL INSTITUTE TO THE EXPENSE OF THE LIBRARY SCHOOL FOR 5 YRS.
INSTITUTE EXPENSE
100%
LIBRARY SCHOOL EXPENSE
28%

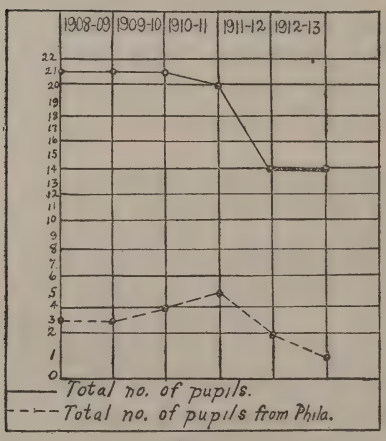
A


COMPARATIVE TOTAL REGISTRATION AND LIBRARY SCHOOL REGISTRATION FOR 5 YEARS.
13,201
100%
95
7%
TOTAL NO. OF GRADUATES FOR 20 YRS EXISTENCE OF THE SCHOOL-317

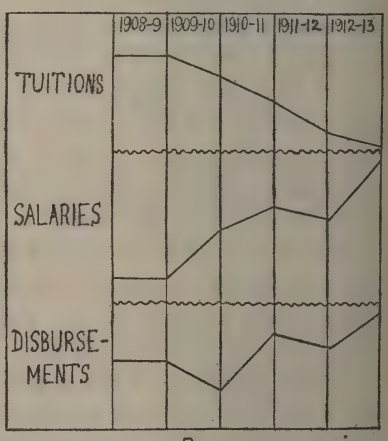
B


LIBRARY SCHOOL
POSITIONS AND SALARIES IN ONE GROUP OF PHILADELPHIA LIBRARIES
(THE MAXIMUM LOGICAL FIELD FOR DREXEL GRADUATES)
120
DRAWING FROM $216 to $600 Per ANNUM
31
DRAWING $600-720
27
DRAWING $900
12
OVER $900
IN 5 YEARS THE GENERAL LIBRARIES IN PHILADELPHIA TOOK 7 GRADUATES DIRECT FROM THE LIBRARY SCHOOL
7
TOTAL NOTICES ON FILE OF VACANCIES IN LIBRARIES OF THE UNITED STATES FOR LAST 5 YEARS AT SALARIES OF $600 OR OVER—166

C



D



E

A GRAPHIC STUDY OF THE LIBRARY SCHOOL SITUATION AT DREXEL INSTITUTE.

THE NATIONAL CONFERENCE COMMITTEE ON STANDARDS.

The other difficulty lies in the scheme of unit values adopted by the College Entrance Examination Board and the National Conference Committee on Standards of Colleges and Secondary Schools. As these values have received a longer trial, it has become increasingly apparent that certain modifications, especially in the weight of the units in algebra and history, are probably in order.

To ascertain the extent to which the schools hold this conviction, the National Conference Committee sent out to the principals and headmasters of 500 schools a list of questions concerning the number of recitation periods per week devoted to algebra and history and the place of these subjects in the school curriculum. On the strength of the replies received the two following topics were placed for special consideration upon the program of the meeting of the National Conference Committee held in New York February 28:

1. Shall the present unit values of 1½ for elementary algebra and 1 for history be changed?

2. Shall the committee recommend a different valuation for units in the earlier and later parts of the school course, or shall it issue an explanatory statement that will make clear the difference between work in the different years and that will guard against a too literal interpretation of the unit?

As a result of the information received from the schools that had been circularized, the conference committee voted to send the following circular letter to the members of its constituent bodies:

In spite of the marked progress toward uniformity in college entrance credits, this committee is informed of certain recurring difficulties in administration. It appears, for example, from our general inquiry concerning the subject, that elementary algebra is usually given more time than is represented by the unit and a half of credit given to this subject and that certain branches of history are usually given less time than is represented by the unit of credit that they receive. There is, on the other hand, a tendency toward a strictly mechanical interpretation of the units, even to the point of counting minutes, which emphasizes the letter rather than the spirit of a system of merely approximate measures.

The committee realizes the importance of recommending as few changes in the regulations as possible, but it believes that it will be of service if the organizations that it represents will consider and report to the committee their official judgment or the attitude of their members toward the following suggestions:

(*a*) That the unit credits assigned to the subjects of elementary algebra and history be modified so as to represent more nearly the amount of time given to these subjects.

(*b*) That in certain subjects—as, for example, history—the amount of credit to be assigned should not be uniform in all cases, but should vary with the time and attention given.

(*c*) That some distinction be made between the amount of credit that is given to subjects taken in the early years of the high school and those taken in the later years.

(*d*) That there be adopted some uniform plan of limiting the number of subjects in which credit may be gained in order that continuity of work may be secured in at least two subjects.

THE AMERICAN MEDICAL ASSOCIATION.

The Council on Medical Education of the American Medical Association rendered its report to the House of Delegates of the American Medical Association June 22–25, 1914. Two years ago the council was instructed by the house of delegates to omit from class A (of its classification of medical colleges) after January 1, 1914, any medical college which did not require for admission at least one year of collegiate work in addition to the standard four-year high-school education, the additional year to include college courses in physics, chemistry, biology, and the modern languages. The council has since voted to work toward the legal enforcement by State licensing boards of college courses in physics, chemistry, and biology. For the present it believes that a modern language should not be made a legal requirement. Medical colleges should, nevertheless, be urged to adopt it. Eighty-two medical colleges have met this standard and are already requiring for admission one or more years of collegiate work or have announced their intentions of doing so, beginning October 1, 1914. Of these, 37 have adopted the standard of two or more years of college work.[1]

ENTRANCE REQUIREMENTS.

Changes in entrance requirements have been alluded to. Those announced by the United States Military Academy, the regents of the University of the State of New York, and Yale University affect such large numbers of young men and women as to be especially worthy of mention.

ADMISSION TO THE UNITED STATES MILITARY ACADEMY ON CERTIFICATE.

In January, 1914, the War Department issued general orders providing that a candidate for admission to the United States Military Academy might thereafter be excused from taking the mental entrance examination if he complied with certain stated conditions. Before the end of March a large number had qualified under the terms of the general orders and were admitted to the academy without mental examination. But it appeared that the terms of exemption were in some respects too liberal. The War Department therefore rescinded the order of January 23, and on May 22, 1914, issued General Orders, No. 38, which provide for the exemption from mental examination for admission to the United States Military Academy upon one of the following conditions:

1. That he present a properly attested certificate that he is a regularly enrolled student in good standing without condition in any university, college, or technological school accredited by the United States Military Academy, provided that the entrance require-

[1] See ch. 8, p. 192, of this report for further details of medical-school progress.

ments for the course he is pursuing in such institution require proficiency in subjects amounting to 14 units of the College Entrance Examination Board, which must include mathematics A_1 (algebra to quadratics), A_2 (algebra, quadratics and beyond), and C (plane geometry); English A (reading and practice) and B (study and practice), as outlined by the College Entrance Examination Board. A certificate indicating enrollment at an irregular time or for the specific purpose of obtaining such certificate will not be accepted.

2. That he present a properly attested certificate of graduation from a preparatory school or public high school which is on the accredited list of one of the institutions referred to in paragraph 1 of this order, provided that he is thus certified to have established proficiency in subjects amounting to 14 units of the College Entrance Examination Board, which must include mathematics A_1, A_2, and C, and English A and B, as outlined by the College Entrance Examination Board. A certificate indicating graduation at an irregular time for the specific purpose of obtaining such certificate will not be accepted.

3. That he present a properly attested certificate from the College Entrance Examination Board that he has passed 14 units of its examinations, including mathematics A_1, A_2, and C, English A and B, and history A (ancient history) and D (American history and civil government).[1]

The Bureau of Education has been given the task of deciding whether the schools and colleges which apply for the privilege of enrolling students in the academy without examination meet the terms of paragraph 1 or paragraph 2.

CHANGE IN THE REQUIREMENT FOR NEW YORK REGENTS' COLLEGE ENTRANCE DIPLOMAS.

College entrance diplomas in arts and in science were formerly issued by the regents of the University of the State of New York to pupils in recognized high schools who earned 72 specified academic counts. A regent's count is one of four or five subjects pursued 1 day a week for 45 minutes a day during 38 weeks. Upon the recommendation of the Association of Colleges in the State of New York and the State Examinations Board the requirements for these diplomas have been reduced to 70 counts. A new college entrance diploma in engineering, also requiring 70 counts, is added. The distribution of requirements for each of the older diplomas has been slightly modified, as indicated in the following paragraphs:

For the college entrance diploma in arts the new requirement allows the 30 counts prescribed in foreign language to be made up either of Latin 20 counts and a second foreign language 10 counts, or, at the option of the student, of 15 counts in Latin and 15 in a second foreign language. The electives are reduced from 12 to 10 counts.

For the college entrance diploma in science the requirement in science is reduced from 10 to 5 counts. The requirement in the first (of two) foreign language is raised from 10 to 15 counts, making a total of 25 counts of foreign language, instead of the 20 counts formerly prescribed. The electives are reduced from 12 counts to 10 counts.

The college entrance diploma in engineering is granted for the satisfactory completion of English, 13 counts; algebra, 7 counts; plane geometry, 5 counts; history, 5 counts; Latin, French, or German, 15 counts; physics, 5 counts; a second science, 5 counts; advanced mathematics, 5 counts; electives, 10 counts.

[1] The latest statement of the requirements is contained in General Orders No. 19, April 7, 1914.

MODIFICATIONS OF YALE'S ENTRANCE REQUIREMENTS.

Yale University has long represented the conservative party in the matter of entrance requirements. Admission has been strictly by examination. The range of subjects required for the A. B. course has been limited to those which have been proved by long experience to furnish valuable training for a classical college curriculum. Less work in classics and more mathematics and science are required for admission to the Sheffield Scientific School, but the plan is otherwise the same as for the A. B. course. In the catalogue of 1913–14 appears a very brief announcement under the heading, "Special cases where good preparation differs from fixed requirement," which indicates a new departure. Under this plan it will be possible for good students whose preparation has not coincided absolutely with the prescribed entrance requirements to enter the college or the scientific school.

The catalogue states:

> The committees on admission are prepared to consider the application made by a school principal on behalf of a final candidate who, during his preparatory course, has shown unusual ability and maintained a high grade of scholarship, but whose subjects of study have differed somewhat from those prescribed for admission to the undergraduate departments of Yale University.

NEW FOUNDATIONS AND REORGANIZATIONS.

CHANGES AT COLUMBIA UNIVERSITY.

Two of the departments of Columbia University which have previously given chiefly undergraduate instruction begin the year 1914–15 as graduate departments.

The school of mines, which celebrated its fiftieth anniversary in May, 1914, becomes now the graduate school of engineering on the same footing as the other graduate schools of the university. Three years of specialized professional study will be offered, leading to the several technical degrees granted in the schools of mines, engineering, and chemistry. For admission to these courses the completion of at least three years of a college or scientific school course, including work in mathematics, physics, chemistry, drafting, shopwork, surveying, and mineralogy will be required. A new course leading to the degree of B. S., which may be completed in three years, "without undue strain," has been organized at Columbia College, as preparation for the advanced work of these new graduate departments.

The school of education of Teachers College announced in the spring of 1914 that beginning July 1, 1914, it would abandon all undergraduate courses leading to the degree of B. S. and become a graduate school, offering only advanced curricula leading to the degree of A. M. or Ph. D. The new requirement for admission to the school is a bachelor's degree from an approved college or its equivalent. The announcement states:

This reorganization has been made in response to a widespread demand throughout the country for increased preparation on the part of high-school teachers of academic subjects and for opportunities for thorough training for such responsible positions as school superintendent, principal of a high school, principal of a normal school, head of a college or university department of education, critic teacher, primary supervisor, educational investigator, school statistician, and so forth. That preparation for work of this type must be of a graduate character is without question. Only students with broad academic and professional training in advance of the usual undergraduate courses can hope to meet the present demands in this better class of positions.

THE SCHOOL OF EDUCATION OF THE UNIVERSITY OF PENNSYLVANIA.

Provisions for the scientific training of teachers in the East have been still further increased during the last academic year by the expansion of the work in education at the University of Pennsylvania. The department of education at the University of Pennsylvania, which was started in 1894, was considerably increased in 1913 by means of financial assistance granted by the Pennsylvania Legislature. The chair of pedagogy was divided into three professorships: Prof. A. Duncan Yokum retained the chair of educational research and practice, Dr. Harlan Updegraff being elected professor of educational administration, and Dr. Frank P. Graves professor of the history of education. In the spring of 1914 the expanded department was reorganized as the school of education, a separate department of the university. A special faculty with Dr. Graves as dean was selected. The requirements for admission to the new school are similar to those of the college and presuppose graduation from a first-class high school. A four-year course of study will lead to the degree of bachelor of science in education.

COOPERATIVE AGREEMENT BETWEEN HARVARD AND THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY.

The proposal to consolidate with the Massachusetts Institute of Technology those departments of Harvard University granting degrees in applied science is not new. It was first made in 1870, but no satisfactory agreement could then be reached. The question was raised for the second time in 1897. Again in 1904 the matter was broached and after extensive negotiations dropped once more. The removal of the Massachusetts Institute of Technology in the near future to the extensive plant now being constructed in Cambridge has emphasized anew the wastefulness and unwisdom of the competition between the two institutions. The fourth attempt to bring about a plan of cooperation has met with success. The agreement was approved by the Harvard corporation on December 29, 1913, and by the Technology corporation on January 12, 1914. In his annual report for the year 1912–13, President Lowell gives the following brief résumé of the new plan:

The agreement * * * provides for complete cooperation in the teaching of mechanical, electrical, civil and sanitary engineering, mining and metallurgy, in the

buildings of Technology, now under construction on the Charles River embankment in Cambridge. Each institution is to contribute such sums as it can, and in particular Harvard is to use for the purpose the income of the funds of the Lawrence Scientific School and three-fifths of the income of the McKay endowment, the remaining two-fifths being required for other branches of science useful to man not included in the agreement. The fees of students, for the present at least, are to be credited to the two institutions in the proportion of their students in the subjects covered by the agreement at the time it was made.

Appropriations for any purpose must be approved by the institution that supplies the funds used; but by far the most important of all appropriations are those for salaries, and they depend on the appointment of the teaching staff, for which a special procedure is provided. All professors, associate and assistant professors—that is, all the instructors of superior grade, all those who sit in the faculty for the departments to which the cooperation extends—can be appointed by the institution that pays their salaries only after consultation with the other. All these officers, now existing or hereafter appointed, are to have the titles and privileges of their rank in both institutions; and all their students registered at Technology, unless they signify a contrary intent, are to be entitled to the rights and privileges of students in the professional schools of the University, and deemed candidates for its degrees * * *. By the arrangement thus made, the higher instructors in the subjects mentioned are professors both of Harvard and Technology, and the students in those subjects will, normally, be students in both, receive degrees from both, and become graduates of both.

The conduct of the instruction covered by the agreement is intrusted to the president of the Institute—in whose selection the president of the University is to have a consultative voice—and to the faculty of the Institute, consisting of all the joint professors and all others teaching at Technology subjects not included in the cooperation. This faculty is to regulate, according to the directions given to it by the respective corporations, the courses of instruction leading to their separate degrees; and conceivably the two institutions might prescribe different requirements, although no such divergence is contemplated.

THE MUNICIPAL UNIVERSITY OF AKRON.

The present year has seen the establishment of the Municipal University at Akron, Ohio, under the Ohio act permitting the foundation and support of universities as part of the public educational systems of cities. The Akron city council voted, on September 24, 1913, to take over the property of Buchtel College and use it as the nucleus for the new Municipal University of Akron. Buchtel College was founded in 1870, under the joint auspices of John R. Buchtel and the Ohio Universalist Convention. For many years it drew its students largely from denominational sources. In the last two decades, however, the denominational support has gradually declined. Meanwhile, the college drew an increasing number of students from the city of Akron. In 1912–13 the percentage of the student body coming from the city was 62. The decline in outside financial support coupled with this amazing increase in local students, induced the trustees to propose that the city of Akron take over the property of the college and through the support of city funds endow it with new life. The proposals of the trustees were:

First. That the city of Akron will devote perpetually the funds and plant thus turned over to it, to the uses of a municipal college or university, to be called the College (or University) of Akron, with the understanding that in case of the development of several colleges, schools, or departments, the department of liberal arts shall retain the name of "Buchtel College of Liberal Arts."

Second. That the city will provide for the maintenance and growth of the institution within such limits as may be provided for by law.

Third. That the government of the institution shall be under the control of a separate board of trustees to be chosen and perpetuated by municipal authority in such manner as may be now or hereafter provided by law, with the provision, however, if the law permit, that fitting representation on the board of trustees be assured to the alumni.

In agreeing to these proposals the council of the city of Akron voted to levy a tax of five-tenths of 1 mill for the support of the institution.

The Municipal University of Akron starts the year 1914–15 with departments of arts, cooperative engineering, and home economics. It maintains also a department of civic cooperation, which includes a bureau of city tests and a bureau of industrial chemical research.

DELAWARE COLLEGE FOR WOMEN.

By an act of the Delaware Legislature of 1913, Delaware College was reincorporated and came under the sole possession of the State. From 1870, when it was designated by the legislature as beneficiary under the Morrill act, and so became the land-grant college of Delaware, until 1913 it had existed under combined private and State ownership.

More significant still, for the future development of higher education in Delaware, was the appropriation by the same legislature of $30,000 annually, for five years, for the erection and equipping of a college for women affiliated with Delaware College. Thus, for the first time, Delaware provides opportunities for the higher education of girls within its own borders. There is now but one State left in the Union—New Jersey—in which there is no college open to women.

The new affiliated college for women occupies a site of its own, about a mile and a quarter from Delaware College. It is under the control of the same board of trustees and will, for the time being, share in the services of the faculty of Delaware College. The intention is, however, to build up a separate faculty for women as the needs of the institution increase. The board has borrowed a sufficient sum of money on the strength of the annual appropriations to complete the buildings for the opening of the affiliated college in the fall of 1914.

THE VANDERBILT CASE.

The changes which have taken place in the control of Vanderbilt University as the result of a recent decision of the Supreme Court of Tennessee have attracted the attention not only of educators all

over the country, but of church bodies and the secular press as well. There is still some difference of opinion between the two parties to the controversy as to what are the essential facts in the case. Those recited below are, however, recognized by the official organs of both parties to have been largely influential.

The cause of the difficulty between the board of trust of Vanderbilt University and the general conference of the Methodist Episcopal Church South appears to date from the year 1905, when the board of trust rescinded its by-law passed in 1894, by which the bishops were made ex officio members of the board, and instead elected directly five senior bishops. In the same year the board of trust endeavored to procure a new charter. This effort was defeated by the activities of certain officials of the church.

As a result of this disagreement, in 1906 the general conference appointed a commission of five laymen to "determine the relation of Vanderbilt University to the Methodist Episcopal Church South," and to outline the rights of the two bodies with relation to one another.

The commission rendered a report, the principal decisions of which became later the subject of court action. They are thus summarized by the Vanderbilt University Quarterly:[1]

> The commission held (1) that the petitioners who applied for and obtained the charter of Vanderbilt University were not the members of the corporation, but that certain annual conferences were the members thereof; (2) that Mr. Vanderbilt was not the founder, but the founders were the annual conferences represented at the Memphis convention;[2] (3) that since 1898 the general conference, as assignee of the annual conferences, was the sole member of the corporation; (4) that the trustees were and are the agents of the conference; (5) that the bishops were not members of the corporation, but that they were common-law visitors with veto powers.

The general conference of 1910 accepted the report of this commission and endeavored to secure the agreement of the board of trust to its findings. Upon the refusal of the board of trust to concur the general conference proceeded to elect three trustees to fill vacancies existing on the board of trust, thus making a test case of the commission's report. (Previously trustees had been elected by the board and confirmed by the general conference.)

The board of trust refused to seat the members thus elected. It elected three others to fill the vacancies and rescinded the by-law of 1908, by which the names of trustees elected by the board must be submitted to the general conference for confirmation.

The bishops then filed an original bill in the chancery court of Davidson County, Tenn., for the October term of 1910, praying that

[1] Vol. XIV, No. 1, p. 14.

[2] The delegates of six annual conferences of the church met at Memphis in January, 1872, and after three days' discussion, adopted nine resolutions, known as the Memphis resolutions, looking to the establishment of a university.

the court enjoin the board of trust from seating the new members. The trustees filed an answer denying the right of the church to elect trustees and the right of the bishops to exercise supervision over the university, and maintaining that the church never had possessed any rights in the university.

The case came to trial in December, 1912, and in February, 1913, the chancellor rendered a decision sustaining the bishops at every point. The trustees immediately took an appeal to the Supreme Court of Tennessee.

While the appeal was pending Mr. Andrew Carnegie offered $1,000,000 for the medical department of the university, $800,000 of it being contingent upon the winning of the suit by the trustees. The bishops, exercising the power they claimed of veto over the action of the trustees, repudiated the gift. The board of trust, however, refused to recognize this action.

The supreme court rendered its decision on March 21, 1914. The principal points made were thus reported in the Nashville Christian Advocate, March 27, 1914:

The members of the committees appointed by the various annual conferences and making up the Memphis convention in 1872 did not meet as representatives of the annual conferences, but as mere individuals.[1]

Mr. Vanderbilt, and not the annual conferences nor the church, was the founder and original patron of this institution.

The church does not own any part of Vanderbilt University. The only relation is one of "affiliation and influence."

No visitorial powers rest in the college of bishops.

The general conference of 1910, when it undertook to elect members of the board, was not acting within its rights, and its appointees are not entitled to seats in that board. The board of trust in 1910, in rescinding its by-laws and electing three trustees, was not acting within its rights; but the three trustees are entitled to their seats, subject to the general conference.

The contract or by-law relation of the general conference would "cease" should the general conference "voluntarily surrender * * * or contumaciously refuse to confirm members elected and cease to cooperate with the university." Then the right to representation on the board of trust would cease, "and in that event the board of trust could proceed independently of the general conference to fill vacancies in its own body."

The general conference, meeting in Oklahoma City in May, 1914, adopted unanimously a series of resolutions which rehearsed the history of the controversy between the board of trust and the conference and recommended the appointment of a commission, to be known as the educational commission of the Methodist Episcopal Church South. This commission was instructed, among other things, to reconvey to the patronizing annual conferences such authority over the university as belongs to the general conference; with the recommendation also that the patronizing conferences insti-

[1] Thus the original incorporators of the university were not the conferences through their representatives, but a group of individuals.

tute legal proceedings to obtain their rights of ownership and control of the university, the expenses of litigation to be paid by the board of education of the general conference of the Methodist Episcopal Church South.

The resolutions further provide for the transfer to the general board of education of all the rights of the general conference to confirm persons elected to membership in the board of trust at the university.

The resolutions finally instruct the commission to—

> consider and determine the advisability and wisdom of establishing an institution or institutions of higher education of the grade of a university for and on behalf of the Methodist Episcopal Church South, it being the intention of the general conference to, and it does hereby, confer upon the said commission authority to establish and provide for the location, maintenance, and endowment of an institution or institutions of higher education, and to establish and provide for the location, maintenance, and endowment of a school or schools of theology, with full power and authority in this regard to act for and on behalf of this general conference as fully and freely as it acts or would act for itself. * * *. If said commission shall determine to establish such institution or institutions of learning, it shall take such steps as are necessary to incorporate the same, so as to secure to the Methodist Episcopal Church South the ownership and control of the same in perpetuity.

The adoption by the conference of these resolutions was held by the university, and was evidently intended by the conference itself, to be tantamount to severing the relations existing between the university and the general conference.

NEW TENDENCIES IN ENGINEERING EDUCATION—THEIR BEARING ON THE ARTS CURRICULUM.

In the summary at the head of the chapter allusion was made to the growing sentiment in favor of the prescribed and carefully coordinated course of study as a foundation both for general culture and for diversified specialization. The recent application of this idea in the field of engineering education, with certain modifications due to the special demands of the profession, is interesting in this connection. The training of the technical specialist, the engineer ready to earn his livelihood by the practice of his profession, is in certain institutions being relegated to the graduate school, or at least to the latter part of the baccalaureate course. The undergraduate course, at least for the earlier years, is devoted to general preparation in the sciences fundamental to all branches of engineering and in other subjects held to be essential to a liberal education. Thus the undergraduate course in engineering loses its strictly professional cast. It becomes one solution of the problem of general education. Perhaps the best known exponent of this tendency is the new engineering department of Johns Hopkins University, established with the aid of the liberal appropriations made by the legislature of Maryland in 1912. During

the first three years of the four-year course the program of studies is uniform for all students. Specialization in mechanical, civil, electrical engineering, etc., occurs only in the last year of the course.

An argument in favor of this new policy, together with a defense of engineering education as general liberalizing training, was presented by Dean Gardner C. Anthony, of the Tufts College engineering school, in his address as president of the Society for the Promotion of Engineering Education at Princeton, in June, 1914. A general undifferentiated course in engineering during the first three years similar to the Johns Hopkins plan has been in operation for several years at Tufts, under Dean Anthony's direction.

Dean Anthony recalled the development of the engineering courses as offshoots of the A. B. courses. While the parent colleges have run to unlimited or only slightly hampered election, the engineering schools have followed the same impulse and have run to minute specialization. The subdivision and insulation of engineering courses has now proceeded altogether too far. Engineering schools must in the future return to somewhere near the point whence they and the arts colleges set out. They must find a program which will educate the *man*. The development of the specialist may and should be left to the graduate school or to experience.

Moreover, the cultural end may be gained without substantial loss of technical and specialized preparation if a proper coordination and correlation of the work of the various departments is secured. The affinity between pattern making and English, for instance, is not commonly noted by the instructors of these two subjects. It escapes the attention of the lay observer. Nevertheless it exists. In fact, departmental independence and self-sufficiency, departmental blindness to points of contact with other fields of knowledge, are the greatest handicaps to the development of both general and special courses. By close cooperation between the several departments and engineering school as well, the college of arts may become a kind of "composite Mark Hopkins," and a more effective instrument both for general and special training.

RESIGNATIONS AND ELECTIONS.

Among the many changes in executive positions, mention is made here only of those affecting State universities and colleges:

President Arthur H. Wilde, of the University of Arizona, resigned September 1, 1914, and was succeeded by Dr. Rufus B. von Klein Smid, formerly head of the department of psychology at De Pauw University and for the last two years associate superintendent of the Indiana Reformatory.

President James H. Baker, of the University of Colorado, retired on the 1st of January, 1914, and was succeeded by Prof. Livingston Farrand, of the department of anthropology at Columbia University.

Dr. George A. Harter has been succeeded as president of Delaware College by Dr. Samuel C. Mitchell. Dr. Mitchell was at one time president of the University of South Carolina, and at the time of his election was president of the Medical College of Virginia, at Richmond.

Dr. Melvin A. Brannon, dean of the college of liberal arts of the University of North Dakota, has been called to the presidency of the University of Idaho.

President John G. Bowman, of the University of Iowa, resigned in March, 1914, and was succeeded by Acting President Thomas H. MacBride, formerly head of the department of botany in the university.

Chancellor A. A. Kincannon, of the University of Mississippi, who resigned in the spring of 1914, has been succeeded by Dr. Joseph N. Powers, formerly State superintendent of public education of Mississippi.

President Joseph E. Stubbs, of the University of Nevada, died May 27, 1914, and has been succeeded by President Archer W. Hendrick.

Acting President Edward K. Graham, of the University of North Carolina, has been elected to the presidency of that university.

Prof. William Spencer Currell, head of the department of English of Washington and Lee University, has been elected president of the University of South Carolina, to succeed Dr. S. C. Mitchell.

President Robert F. Slagle, of the Agricultural and Mechanical College of South Dakota, was elected in January to the presidency of the University of South Dakota, to succeed President Franklin B. Gault. He has been succeeded in the presidency of the agricultural and mechanical college by Dr. Ellwood C. Perisho, formerly dean of the college of arts and sciences of the University of South Dakota.

President Thomas F. Kane, of the University of Washington, resigned in December, 1913. Prof. Henry Landes, of the department of Latin of the University of Washington, has been made acting president.

CHAPTER VIII.

PROGRESS OF THE YEAR IN MEDICAL EDUCATION.

By N. P. Colwell, M. D.,

Secretary of the Council on Medical Education of the American Medical Association, Chicago, Ill.

Contents.—Progress in the last 12 months—Present status—Colleges having higher entrance requirements—State requirements of higher preliminary education—Financial aid to medical colleges—Closer relations with hospitals—Development by limitation—Helps in the general progress—Other improvements by licensing boards—Standards of medical practice—Relation of medicine to general education—Entrance to college by examination—Thorough and reliable examinations essential—Administration of entrance requirements—Choice of a medical school—Medical knowledge more extensive and complete—State requirements more exacting—Nonrecognition of medical colleges—All-time clinical professors—Graduate courses in public health—Graduate medical instruction—In conclusion.

The rapid and remarkable improvement which medical education has been undergoing during the past 10 years has not diminished during the past 12 months. There has been a further decrease in the vast oversupply of medical colleges possessed by this country in 1904. Of the colleges remaining a still larger number (85 per cent) have put into effect higher standards of preliminary education for admission (one or more years of collegiate work); more salaried expert teachers have been employed; endowments have been greatly increased; new buildings have been erected; new laboratories have been provided; closer relations have been established between the medical colleges and hospitals; and much better opportunities for medical students to study and observe the treatment of the sick have been provided. Medical education has indeed been greatly improved, while at the same time the opportunities for students to secure a thorough training in the latest and best methods of diagnosis and treatment, as well as in disease prevention, have been markedly increased. The diminution in the number of medical colleges, therefore, has resulted in the development of a better quality without in any way restricting the opportunities for those who are well qualified to study medicine.

In addition to the improvements immediately within the medical colleges, medical education has been greatly improved by the establishing of better means for postgraduate medical instruction; better courses in preventive medicine, public health, etc., for the training of those who are to become health officers; and a larger provision financially and otherwise for medical research, by which many new

facts will be added to the knowledge regarding the causation, diagnosis, treatment, and prevention of disease. Again, laws have been secured in a number of States providing for a better regulation of medical practice, for higher standards of preliminary education, and for better methods of examination.

On the other hand, as this report will show, there still remain serious needs to be met before medical education in the United States will be on a par with that of other first-class nations, and before the people of this country will be safe from the menace of incompetent and unqualified practitioners of the healing art.

PRESENT STATUS OF MEDICAL EDUCATION.

The numbers of medical colleges, students, and graduates have still further decreased during the past year.[1] This is a continuation of the expected reaction following the greatly inflated enrollments in the vast oversupply of medical colleges possessed by this country in 1904, when over half of the world's supply were in the United States. In fact, to those who are fully acquainted with the low educational standards held by a large majority of the medical colleges in 1904, the reduction in the number of medical students from 28,142 to 16,502, of medical graduates from 5,747 to 3,594, and of medical colleges from 162 to 101, gives evidence of marked improvement and in every sense reasons for congratulation rather than alarm. For example, among the thousands who graduated annually from medical colleges in and prior to 1904, very few had secured a good preliminary education, shown by the possession of degrees from colleges of liberal arts, while 817, or 22.7 per cent, of those graduating in 1914 were also graduates of standard colleges of arts and sciences.[2]

TABLE 1.—*Reduction in number of medical colleges, students, and graduates.*

Numbers.	Nonsectarian.			Homeopathic.			Eclectic.			Totals.		
	Colleges.	Students.	Graduates.	Colleges.	Students.	Graduates.	Colleges.	Students.	Graduates.	Colleges.	Students.	Graduates.
Largest	130	24,930	5,190	22	1,909	420	10	1,014	221	162	28,142	5,747
Present	87	15,438	3,370	10	794	154	4	270	70	101	16,502	3,594
Decrease	43	9,492	1,820	12	1,105	266	6	744	151	61	11,640	2,153
Percentage	33.1	38.1	35.1	54.5	57.9	63.3	60.0	73.4	68.3	37.7	41.4	37.5

[1] See Jour. of Amer. Med. Assoc., educational number, Aug. 22, 1914, pp. 657-690; also statistics of professional schools, vol. 2 of this report.

[2] See also vol. 2 of this report, chapter on professional schools, for slightly different figures reported to this bureau.

TABLE 2.—*Medical graduates with liberal arts' degrees.*

Years.	Nonsectarian.			Homeopathic.			Eclectic.			Totals.		
	Graduates.	A. B., B. S.	Per cent.	Graduates.	A. B., B. S.	Per cent.	Graduates.	A. B., B. S.	Per cent.	Graduates.	A. B., B. S.	Per cent.
1910	4,113	664	16.1	183	13	7.1	114	3	2.6	4,440	680	15.3
1911	4,006	683	17.0	152	18	11.8	110	4	3.6	4,273	705	16.5
1912	4,206	744	17.7	185	15	8.1	92	4	4.3	4,483	763	17.0
1913	3,679	732	19.9	209	20	9.6	93	1	1.1	3,981	753	18.9
1914	3,370	804	23.9	154	7	4.5	70	6	8.6	3,594	817	22.7

The clearness with which the public now understands the conditions and needs of medical education is shown by the following concise newspaper comment regarding the reductions in the numbers of medical colleges, students, and graduates during the last 10 years. Says the Chicago Journal:

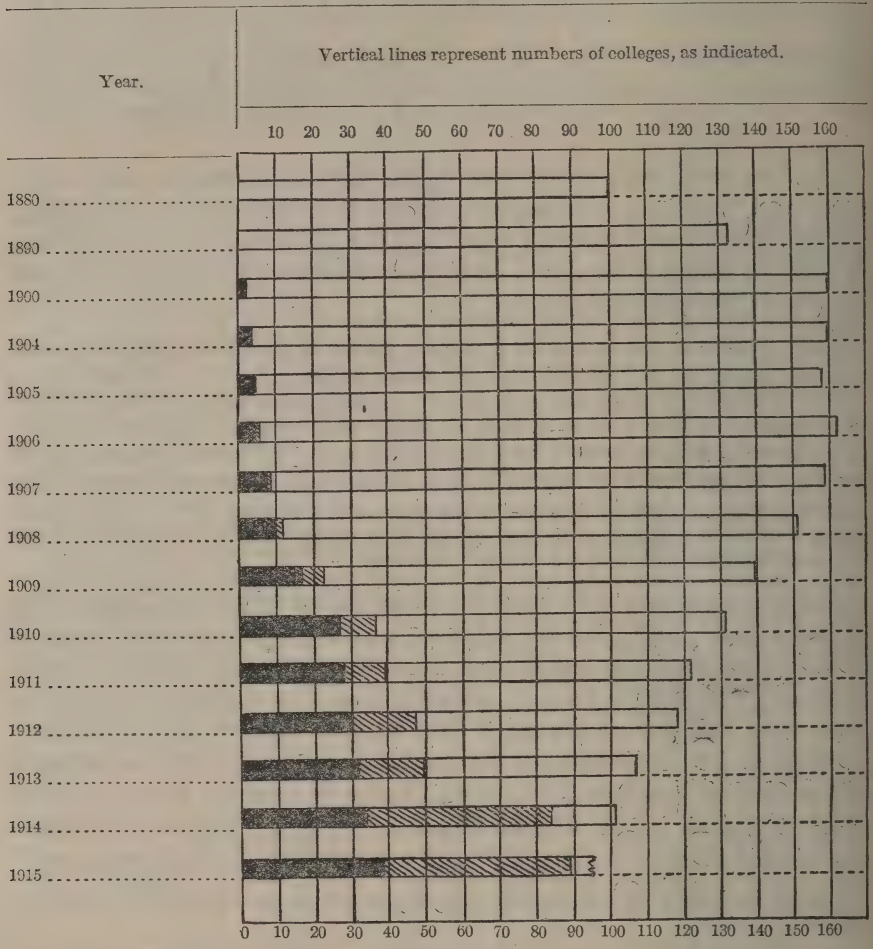
> Thirty years ago any ambitious youngster who had the price could find some "college" ready to fit him out with the magic letters "M. D."—ofttimes after a "course of study" so petty that a plumber's apprenticeship was a liberal education by comparison. To-day most of these diploma mills have been closed—though a few continue to do business at the old stand, and to send forth wretchedly unprepared men to undertake that most responsible task in the world, the care of the sick. The country needs not more doctors but better ones. It is getting them. The medical course of study in a first-class medical college of to-day is calculated to try the earnestness as well as the ability of a would-be physician.

Six more medical colleges have been closed this year; these were all institutions that had been rated in the lowest classification (class C) by the Council on Medical Education of the American Medical Association.[1] There have been 85 colleges closed by merger or otherwise since 1904, but during the same time 24 new colleges were organized, making a net reduction of 61 medical colleges. Of the colleges which closed, it is worthy of note (Table 3) that all but 3 of those rated in classes A and B were closed by merger. Of the 35 colleges which were closed outright, all but 3 were in class C, the lowest grade.

[1] A pamphlet containing the latest statement of classification will be sent on application to the Council on Medical Education.

CHART I.—FEWER BUT BETTER MEDICAL COLLEGES.

Showing decrease in totals, but an increase of those having higher entrance standards since 1904.



Total numbers of colleges are graphically indicated by the bands opposite the respective years. The black portions of the bands indicate the numbers of colleges requiring *two years* of collegiate work for admission, while the shaded portions indicate the numbers requiring *one year* of collegiate work. The unshaded portions of the bands indicate the numbers of colleges requiring for entrance a four-year high-school education *or less*.

TABLE 3.—*Colleges closed since 1904.*

Years.	Class A.[1]		Class B.		Class C.		Total.		Total closed.
	Merged.	Extinct.	Merged.	Extinct.	Merged.	Extinct.	Merged.	Extinct.	
1905	8	1					8	1	9
1906									
1907	3		3	1		3	6	4	10
1908	2		2		1	4	5	4	9
1909	3		2			7	5	7	12
1910	1		3		3	6	7	6	13
1911			3		1	3	4	3	7
1912	2					3	2	3	5
1913	3		6	1	1	3	10	4	14
1914					2	4	2	4	6
Total	22	1	19	2	8	33	49	35	85

[1] Based on the classifications of medical colleges prepared by the Council on Medical Education.

While the total number of colleges is growing smaller, however, and approaching more nearly the normal supply for this country, it is encouraging to note (see chart 1) that the number of high-grade, stronger medical colleges is constantly increasing. In 1904 only 4 medical colleges were requiring any preliminary education in advance of the usual high-school education, and the vast majority were requiring much less than that; now 84 are requiring one or more years of advance college work and several others will enforce the higher requirement next year. Of these 84 colleges, 34 require two years or more of collegiate work for admission. Many of the colleges have been remarkably improved also in regard to buildings, new laboratories, better equipment, larger hospital facilities and—most important—more and better full-time salaried instructors.

COLLEGES HAVING HIGHER ENTRANCE REQUIREMENTS.

The 34 medical schools now requiring as a minimum for entrance two or more years of work in a college of liberal arts in addition to a four-year high-school education are here given, together with the year when the requirement went into effect:

	Requirement in force.
California.—Leland Stanford Junior University, School of Medicine	1909
University of California, College of Medicine	1905
Colorado.—University of Colorado, School of Medicine	1910
Connecticut.—Yale Medical School	1909
District of Columbia.—Georgetown University, School of Medicine	1912
Howard University, School of Medicine	1914
Illinois.—Northwestern University, Medical School	1911
Rush Medical College, University of Chicago	1904
University of Illinois, College of Medicine	1914
Indiana.—Indiana University, School of Medicine	1910
Iowa.—State University of Iowa, College of Medicine	1910
State University of Iowa, College of Homeopathic Medicine	1910

	Requirement in force.
Kansas.—University of Kansas, School of Medicine	1909
Maryland.—Johns Hopkins University, Medical Department	1893
Massachusetts.—Medical School of Harvard University	1900
Michigan.—University of Michigan, Department of Medicine and Surgery	1909
Minnesota.—University of Minnesota, Medical School	1907
Missouri.—University of Missouri, School of Medicine	1910
Washington University Medical School	1912
Nebraska.—University of Nebraska, College of Medicine	1909
New Hampshire.—Dartmouth Medical School	1910
New York.—Columbia University, College of Physicians and Surgeons	1910
Cornell University, Medical College	1908
Syracuse University, College of Medicine	1910
North Carolina.—Leonard Medical School	1914
Wake Forest College School of Medicine	1908
North Dakota.—University of North Dakota, School of Medicine	1907
Ohio.—Western Reserve University, School of Medicine	1901
Medical College of the University of Cincinnati	1913
Pennsylvania.—University of Pennsylvania, School of Medicine	1910
University of Pittsburgh, School of Medicine	1913
South Dakota.—University of South Dakota, College of Medicine	1909
Utah.—University of Utah, School of Medicine	1910
Wisconsin.—University of Wisconsin, Medical School	1910

The following 50 colleges require, in addition to a four-year high-school course, one year of college work in physics, chemistry, biology, and a modern language, the requirement beginning in the year given:

	In force.
Alabama—University of Alabama, School of Medicine	1914
California—College of Physicians and Surgeons, Los Angeles	1914
College of Medical Evangelists	1914
District of Columbia—George Washington University, Medical School	1914
Georgia—Atlanta Medical College	1914
University of Georgia, Medical Department	1914
Illinois—Bennett Medical College	1914
Chicago College of Medicine and Surgery	1914
Hahnemann Medical College and Hospital	1914
Kentucky—University of Louisville, Medical Department	1914
Louisiana—Tulane University of Louisiana, School of Medicine	1910
Maine—Medical School of Maine	1912
Maryland—College of Physicians and Surgeons	1914
University of Maryland, School of Medicine	1914
Massachusetts—Boston University, School of Medicine	1914
Tufts College Medical School	1914
Michigan—Detroit College of Medicine and Surgery	1914
University of Michigan, Homeopathic Medical College	1912
Mississippi—University of Mississippi, Department of Medicine	1914
Missouri—St. Louis University, School of Medicine	1910
American Medical College	1914
Kansas City Hahnemann Medical College	1914
Nebraska—John A. Creighton Medical College	1914

	In force.
New York—Albany Medical College	1914
Fordham University, School of Medicine	1914
Long Island College Hospital	1914
University and Bellevue Hospital Medical College	1912
University of Buffalo, Medical Department	1914
North Carolina—University of North Carolina, School of Medicine	1910
Ohio—Ohio State University, College of Medicine	1914
Oklahoma—University of Oklahoma, School of Medicine	1914
Oregon—University of Oregon, Department of Medicine	1910
Pennsylvania—Hahnemann Medical College and Hospital	1914
Jefferson Medical College	1914
Medico-Chirurgical College of Philadelphia	1914
Temple University, Department of Medicine	1914
Woman's Medical College of Pennsylvania	1914
South Carolina—Medical College of the State of South Carolina	1914
Tennessee—Vanderbilt University, Medical Department	1914
University of Tennessee, College of Medicine	1914
University of West Tennessee, College of Medicine and Surgery	1914
Texas—Texas Christian University, School of Medicine	1914
University of Texas, Department of Medicine	1910
Baylor University, College of Medicine	1913
Southern Methodist University, Medical Department	1914
Vermont—University of Vermont, College of Medicine	1912
Virginia—Medical College of Virginia	1914
University of Virginia, Department of Medicine	1910
West Virginia—West Virginia University, School of Medicine	1911
Wisconsin—Marquette University, School of Medicine	1914

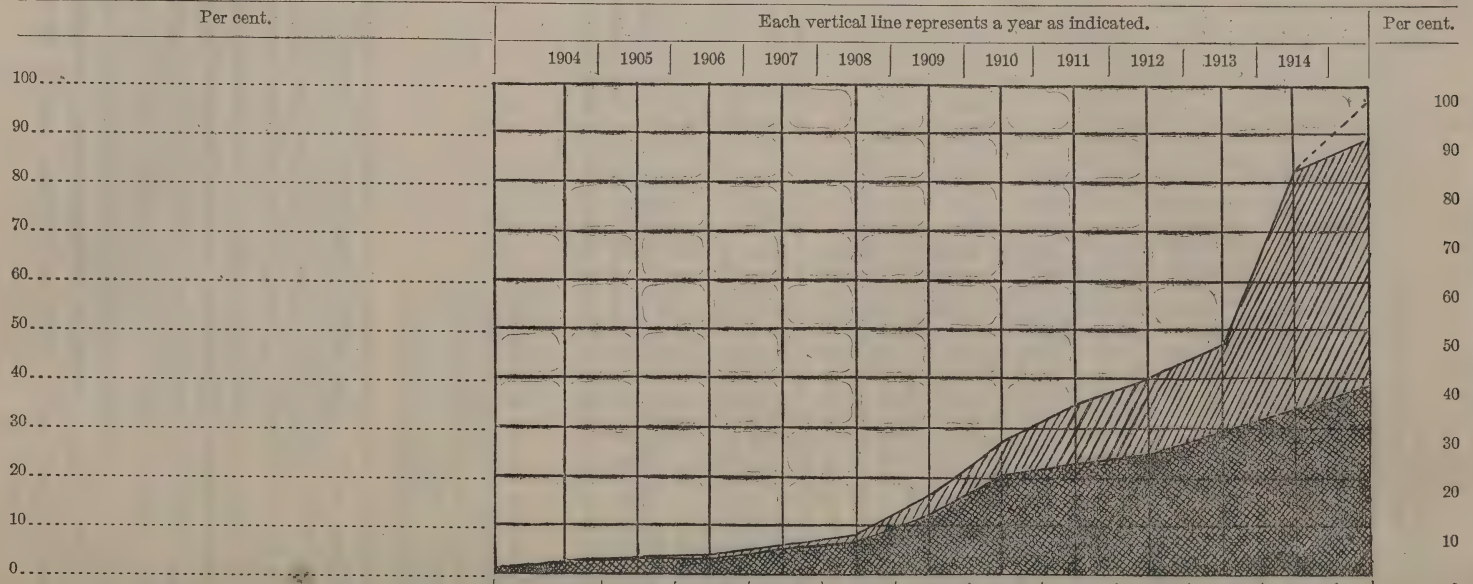
Five of the medical colleges reported in the above list as now requiring one year of collegiate work for admission have announced that all students admitted in the session of 1915–16 and thereafter will be required to have completed two years of collegiate work. They are:

University of Alabama, School of Medicine.
Ohio State University, College of Medicine.
Woman's Medical College of Pennsylvania.
Medical College of Virginia.
Marquette University, School of Medicine.

That the low-standard colleges are the ones which are disappearing and that the colleges with more reasonably high standards are increasing is clearly indicated by chart 1 and the figures accompanying it. Chart 2 shows the increase of higher standard colleges by percentages. Whereas in 1904 less than 3 per cent of the medical colleges in the United States were requiring one or more years of collegiate work for admission, this year 83 per cent have adopted that standard, and 5 others have definitely announced the requirement to begin in 1915. As shown by the heavier shading, the number of medical colleges requiring two or more years of collegiate work for admission has increased from 2.5 per cent in 1904 to 33.7 per cent in 1914, and

CHART 2.—ENTRANCE REQUIREMENTS TO MEDICAL COLLEGES.

Showing percentage increase by years in the number of colleges requiring (light shading) one year and heavy shading) two or more years of collegiate work for admission. Unshaded portion of chart shows proportion requiring a high-school course, or less, for entrance.



Per cent:	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914
High-school education	97.5	96.8	96.3	94.4	92.1	83.6	71.8	67.2	60.2	53.3	16.8
1 year college	....	....	.6	.6	1.3	4.3	7.6	9.8	14.4	16.8	49.5
2 years college	2.5	3.2	3.1	5.0	6.6	12.1	20.6	23.0	25.4	29.9	33.7

The special campaign for higher standards of preliminary education began in 1904. All colleges were urged to adopt a requirement of a year devoted to physics, chemistry, and biology, in addition to a four-year high-school education, and to make this requirement effective January 1, 1910. In June, 1912, a resolution was passed that no medical college would be retained in class A which had not adopted this higher entrance standard by January 1, 1914. The results of these measures are seen in the above chart. Many of the university medical schools have voluntarily exceeded the minimum requirement and have adopted two years of collegiate work, including courses in physics, chemistry, and biology.

several others have announced the requirement to begin in 1915. The adoption of higher requirements by medical colleges is leading to the adoption of similar requirements by State medical licensing boards.

STATE REQUIREMENTS OF HIGHER PRELIMINARY EDUCATION.

Twenty-five States have now adopted requirements of preliminary education in addition to a standard four-year high-school education. These States, the number of college years required, and the time the higher requirement becomes effective are given in Table 4.

TABLE 4.—*States requiring higher standard of preliminary education.*

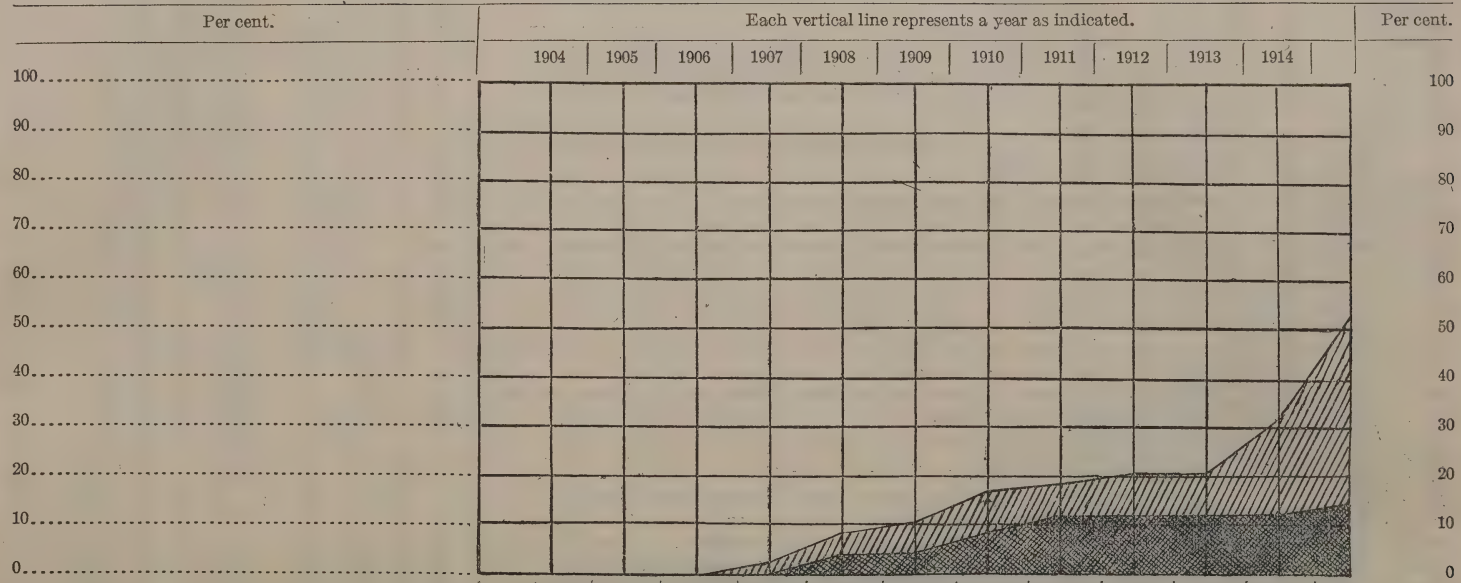
State examining board of—	Years required.	Affects students matriculating in—	Affects all applicants in—
Minnesota	2	1908–9	1912
North Dakota	2	1908–9	1912
Colorado	2	1910–11	1914
Connecticut	1	1910–11	1914
Kansas	1	1910–11	1914
Indiana	2	1910–11	1914
Utah	1	1910–11	1914
Iowa	2	1911–12	1915
South Dakota	2	1911–12	1915
Vermont	1	1912–13	1916
Kentucky	1	1914–15	1918
Michigan	1	1914–15	1918
New Hampshire	1	1914–15	1918
Oklahoma	1	1914–15	1918
Pennsylvania	1	1914–15	1918
Rhode Island	1	1914–15	1918
Texas	.....	1914–15	1918
Virginia	1	1914–15	1918
Washington	1	1914–15	1918
Alabama	2	1915–16	1919
Arkansas	1	1915–16	1919
California	1	1915–16	1919
Illinois	1	1915–16	1919
Louisiana	.....	1915–16	1919
Mississippi	.....	1915–16	1919

It is worthy of comment that the adoption of higher standards of preliminary education by State licensing boards has invariably followed and not preceded the adoption of such requirements by the colleges in those States, showing that the action by the colleges was voluntary and not forced. This is perhaps the best guaranty that the higher standards will be enforced and that the change will be permanent.

As shown in chart 3, the number of States adopting higher standards has increased steadily since 1907. Now 25 States have adopted the requirement of one or more years of work beyond a four-year high-school education, including college courses in physics, chemistry, and biology, and 7 of these require two years of collegiate work, including the sciences named.

CHART 3.—STATE BOARD REQUIREMENTS OF PRELIMINARY EDUCATION.

Showing the percentage increase by years in the number of States in which (light shading) one year and (heavy shading) two years of collegiate work have been adopted as the minimum standard of preliminary education.



Per cent:	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915
High-school education	100	100	100	98.0	91.8	89.8	83.7	81.6	79.6	79.6	67.4	49.0
1 year college				2.0	4.1	6.1	8.1	6.2	8.2	8.2	20.4	36.7
2 years college					4.1	4.1	8.2	12.2	12.2	12.2	12.2	14.3

Early in the campaign for higher entrance requirements for medical schools, January 1, 1908, was mentioned as the date when the requirement should begin. It was found that readjustments would not permit of a general adoption of the higher standard at that time and another date was fixed at January 1, 1910. Several States followed the action of their respective State universities and fixed the requirement of preliminary education at two years of collegiate work rather than one. The action of the American Medical Association in making the requirement of at least one year of collegiate work in addition to a high-school education as essential for a class A rating after January 1, 1914, has been supported by legal action in several States. The effects of the various steps alluded to can be seen in the above chart.

FINANCIAL AID TO MEDICAL COLLEGES.

Aside from the usual incomes for maintenance, incomplete returns show the gifts during the year for endowments, new buildings, research, and public-health instruction in medical schools amounted to over $9,000,000. Among these gifts were: One of $4,000,000 to Cornell University Medical College, by an anonymous donor; $1,500,000 from the General Education Board to the Johns Hopkins University Medical Department, to provide for the employment of all-time professors in three main clinical branches; a gift of $750,000 for Washington University Medical School, St. Louis; and another of $500,000 to the Yale Medical School from the General Education Board to provide for all-time clinical professors. Because of litigation the gift of $1,000,000 made by Mr. Carnegie to Vanderbilt University Medical Department about two years ago was not available for use until this year. Numerous personal gifts were made to different medical schools, ranging from $5,000 to $250,000. For medical research at the Rockefeller Institute—not connected with any medical college—Mr. Rockefeller gave an additional $3,500,000 to establish a department of animal pathology. Sums amounting to at least $4,010,750 were given during the year to build and maintain teaching hospitals. So far as reports were received, nearly $17,000,000 in all was given during the past 12 or 14 months for medical education, teaching hospitals, and medical research.

CLOSER RELATIONS WITH HOSPITALS.

It has now come to be clearly recognized that among the best conducted hospitals in the country are those which are the teaching hospitals of high-grade medical schools. The atmosphere of study and research in the medical school seems also to permeate the hospital. The attending physicians of the staff, who are also on the faculty of the medical school, are more apt to be acquainted with the latest improved methods of diagnosis and treatment, and the patients naturally get the benefit of this knowledge. It is not surprising, therefore, that during the past year many hospitals have sought closer relationships with medical schools or have become teaching hospitals. Others have given medical schools wider privileges in their wards. During the year notable new buildings have been completed at St. Louis for the Barnes and St. Louis Children's Hospitals, on grounds adjoining the new campus of the Washington University Medical School; at Boston, the large new buildings of the Peter Bent Brigham Hospital have been completed on property near the Medical School of Harvard University; at Cincinnati, some of the beautiful new buildings of the Cincinnati City Hospital have been completed—this being the teaching hospital of the Medical College

of the University of Cincinnati; at Indianapolis, the new Robert W. Long State Hospital has been completed, this being the teaching hospital of the Indiana University School of Medicine; at Nashville, Tenn., the new Galloway Memorial Hospital, the teaching hospital of the Vanderbilt University Medical Department, is rapidly approaching completion; at Chicago, Wesley Hospital, the teaching hospital of the Northwestern University Medical School received $1,000,000 as an endowment fund for charity beds; at Cleveland, larger teaching privileges in the City Hospital have been granted to Western Reserve University Medical School; at San Francisco a new teaching hospital is to be erected for the University of California College of Medicine.

DEVELOPMENT BY LIMITATION.

Development by limitation is possible in medical education, even as a pruning of fruit trees leads to the production of better fruit. A year or two ago the Johns Hopkins University Medical Department adopted a rule limiting the enrollment of students in each class to 90, believing that with its present laboratories and equipment the best instruction could not be given to larger numbers. This year Rush Medical College, affiliated with the University of Chicago, has announced that only 100 students each will be accepted in the first and second year classes and 120 each in the third and fourth year classes.

In past years several medical colleges—notably the medical departments of the State Universities of Mississippi, Missouri, and North Carolina—voluntarily discontinued teaching the clinical years of the medical course, owing to the fact that the small cities in which they were located did not furnish an adequate amount of clinical material. During the last year another medical school, that of Dartmouth College, the fourth oldest medical college in the United States, with a record of granting degrees in medicine for 103 consecutive years, has voluntarily discontinued teaching the clinical years, because sufficient clinical material was not available at Hanover. The action in this last instance can not have been taken without a feeling of great regret and yet was promptly voted when the real conditions were understood. It is another example of the noteworthy decisions that, in the last several years, have marked the campaign for better-trained physicians in this country. Meanwhile, this elimination at the Dartmouth Medical School opens the way for a marked development of the teaching of the first two years of the medical course.

HELPS IN THE GENERAL PROGRESS.

The rapid improvements thus far brought about in medical education are largely due to the voluntary action on the part of the better medical colleges following reports that have set forth the actual conditions existing in this country as compared with medical education in the other leading countries of the world. Mergers of two or more colleges in each of numerous cities were promptly made in order to form in each instance one stronger and better medical college. Higher entrance requirements were announced, campaigns for endowments were instigated, and the general upward movement began. There remained, however, a considerable number of medical colleges with more or less commercial aims from which voluntary development was hardly to be expected. Many of these were forced to elevate their standards or to close their doors through the action of the State medical licensing boards—the only bodies having the legal power to regulate medical colleges. Since the publication of the third classification of medical colleges [1] by the Council on Medical Education, it has been ascertained that, as a rule, the degrees granted by these low-grade medical colleges are not accepted as a qualification for license to practice in 31 States.[2] These States are as follows:

TABLE 5.—*State boards not recognizing low-grade colleges.*

Alabama.	Maryland.	Pennsylvania.
Arkansas.	Michigan.	Porto Rico.
Colorado.	Minnesota.	Rhode Island.
Connecticut.	Mississippi.	South Carolina.
Delaware.	New Hampshire.	South Dakota.
Florida.	New Jersey.	Texas.
Georgia.	New Mexico.	Vermont.
Indiana.	New York.	Virginia.
Iowa.	North Dakota.	West Virginia.
Kentucky.	Ohio.	Wisconsin.
Louisiana.	Oklahoma.	

The action of State licensing boards, therefore, is having a very salutary effect in fixing and enforcing reasonably high standards of preliminary and medical education. As may be noted in chart 3, page 200, however, many of the colleges had themselves voluntarily anticipated the higher standards and made radical improvements.

Meanwhile, unless the remaining 18 States secure the necessary laws giving their licensing boards power to refuse recognition to low-grade colleges, or unless the licensing boards make use of such

[1] The latest revision of this classification is published in Jour. of Amer. Med. Assoc., Aug. 22, 1914, p. 669. A reprint containing this classification will be sent to any address on request.

[2] A table showing in what States certain medical colleges are not given unqualified recognition may be found in Jour. of Amer. Med. Assoc. of May 23, 1914, p. 1650.

powers as are conferred on them, those States will be in danger of becoming the dumping ground for the product of these low-standard colleges.

OTHER IMPROVEMENTS BY LICENSING BOARDS.

Since a year ago 4 more licensing boards have been empowered to establish standards of preliminary education. Three more States—Arkansas, Georgia, and Louisiana—have fixed the preliminary requirement at a four-year high-school education; 12 more boards have adopted (see Table 4) the requirement of one or two years of collegiate work in addition to a four-year high-school education; 4 more State boards and that of Porto Rico (see Table 5) have adopted a rule refusing to recognize low-standard medical colleges; and 1 more State, Georgia, has secured a practice act establishing a single medical examiner, to replace three independent and conflicting boards.

The progress of the last year and of the last 10 years is shown in Table 6.

TABLE 6.—*Advances in State license requirements in ten years.*

Requirements or provisions.	States having provision for in—			Increase.		States still having no provision for.
	1904.	1913.	1914.	In 1 year.	In 10 years.	
Preliminary education:						
Any requirement	20	41	44	3	24	5
A standard four-year high-school education or higher	10	37	40	3	30	9
One or two years of college work as a minimum	0	13	25	12	25	24
That all applicants be graduates of a medical college	36	45	45	0	9	4
That all applicants undergo an examination for license	45	48	48	0	3	1
Requirement of practical tests in the license examinations	1	6	7	1	6	42
Full authority by board to refuse recognition to low-grade colleges	14	30	37	7	23	12
Boards refusing to recognize low-grade colleges	5	27	31	4	26	18
Reciprocal relations with other States	27	38	40	2	13	9
Boards recognizing examinations of the United States medical services as a qualification for license	2	5	5	0	3	44
Single boards of medical examiners	36	40	41	1	5	8

There are still 5 States in which the medical-practice acts make no provision for standards of preliminary education, these being the District of Columbia, Florida, Massachusetts, Oregon, and Tennessee.

The 9 States in which no standard has been fixed or in which the requirement of preliminary education is evidently less than a four-year high-school education are:

District of Columbia.	Massachusetts.	Oregon.
Florida.	Montana.	South Carolina.
Idaho.	Oklahoma.	Tennessee.

The 4 States which still allow nongraduates in medicine—those whose training is thus known to be incomplete—to take the examination for license, are Colorado, Massachusetts, Oregon, and Tennessee.

Because of the severity of the examination such candidates are seldom able to secure licenses in Colorado and Oregon, and only a few succeed in getting over the minimum percentage required in Massachusetts. In Tennessee, on the contrary, statistics show that, of the 1,187 candidates licensed by examination in the last four years, 515, or 43.4 per cent, were nongraduates. A strong effort is to be made to secure a new practice act in Tennessee, however.

The 12 States in which the licensing boards do not appear to have full authority to withdraw recognition from low-grade medical colleges are:

Arizona.	Idaho.	Montana.
Arkansas.[1]	Louisiana.[1]	Oregon.
District of Columbia.	Maryland.[1]	Tennessee.
Florida.[1]	Massachusetts.	Wyoming.

In the following States the laws apparently give the boards authority to refuse recognition to low-grade colleges, but, so far as has been reported, the boards are as yet making little use of that authority:

California.	Missouri.[2]	Utah.
Illinois.	Nebraska.	Washington.
Kansas.	Nevada.	
Maine.	North Carolina.	

There are yet 9 States in which the licensing boards have not established the so-called "reciprocal relations" with other States, by which the license issued to a physician by one State is recognized without further examination by the other, in case the physician desires for good reasons to move to the latter State. These States are:

Alabama.	Florida.	Oregon.
Arizona.	Massachusetts.	Rhode Island.
Connecticut.	Montana.	Washington.

Under the present control of licensure, a physician who is licensed in one State and who for good reasons desires to move to another State has to submit to a second tedious examination, including oftentimes very impractical questions.[3] To offset this difficulty reciprocal relations have, in recent years, been established between States of supposedly equal standards, whereby one board will accept the examination of the other as equal to its own, on condition that the other board will reciprocate. Such relations have been established by the majority of States, but in many instances with only 1 to 10 other

[1] Authority divided between two or three separate and independent boards.

[2] One medical college has been reported as "not in good standing."

[3] One instance is reported of an eminent physician of national reputation who, when moving to another State, was required to undergo a written test of his ability to remember textbook words—the test being given, it was inferred, by one of his former pupils.

States. Some boards have the legal power to establish such relationships, but arbitrarily refrain from doing so, thereby placing an undue hardship on physicians who desire to remove to or from those States. Based on the instances in which reciprocal relations have been established, the physician's chance of becoming re-registered without further examination is about one in three. In actual practice, however, his chances are much less than that, owing to the other conditions which State boards are compelled to fix because of the wide variance of standards.

Such conditions by State boards are very essential, however, since a poorly administered rule regarding reciprocal registration would seriously lower educational standards. Universal reciprocity will be impossible so long as such widely varying standards of medical licensure are maintained. Meanwhile, thousands of physicians are annually subjected to an unnecessary hardship. It has therefore been suggested [1] that an examination given under Federal authority, without infringing in the least on the examination given by the various States, would in time come to be cheerfully accepted by the States as sound proof of the qualification of the physician who passed it. The nearest approach to such an examination at present is that required of medical officers in the United States Army, Navy, and Public Health Service. Such an examination might be thrown open to any physician on payment of a reasonable fee, whether he is to serve as a Government official or not. Eventually, no doubt, all the States would recognize this Government examination. In five States at the present time those who have served as officers in the Government medical service are eligible to receive licenses without further examination. These States are Alabama, California, Colorado, Illinois, and North Dakota.

There still remain 8 States in which there are two or three boards, instead of one, concerned with the licensing of physicians. These States, and the number of boards in each, are:

Arkansas, 3.	District of Columbia, 3.	Maryland, 2.
Connecticut, 3.	Florida, 2.	New Hampshire, 3.
Delaware, 2.	Louisiana, 2.	

The authority of the two boards in Delaware is centralized in a medical council; that of the three boards of the District of Columbia is centralized in a board of medical supervisors; and that of the three boards of New Hampshire, in the regent—the State superintendent of public instruction. In the other 5 States, however, the entire machinery for examining and licensing physicians is duplicated or triplicated and placed in the hands of two or three separate and independent boards. This confusion has repeatedly resulted in a prac-

[1] "The Use of the Government Medical Services in Raising the Standard of Medical Education," Quarterly of the Federation of State Medical Boards of the United States, April, 1914, p. 235.

tical annulment of educational standards. It has repeatedly happened that candidates who could not secure licenses from one board have readily passed the "examination" of another.

STANDARDS OF MEDICAL PRACTICE.

The question of the standards of medical practice is educational. In effect the State asks: Has the practitioner had the training by which he is enabled to recognize the disease he is called upon to cure? If not, his treatment is mere guesswork and is as apt to do harm as good. Successful treatment of any disorder depends largely upon an accurate knowledge of what is causing that disorder. In all leading countries it is recognized that to secure an adequate training in diagnosis and treatment of diseases requires hard study for five or six years beyond the high-school education—this training to be secured in well-equipped laboratories, in dispensaries, and in hospitals. Such is the training now required by the majority of the medical colleges in the United States.

Dr. F. M. Crandall, of New York, states the case as follows:

> The medical laws are but a part of the general educational laws of the State. These laws are wide in their application, and cover many professions and diverse conditions. There is nothing exceptional in the laws covering medical practice. They are at the farthest possible remove from class legislation. They are simply a part of the great educational system of the State. The medical profession has upheld the hands of the State educational authorities, whose aim has been to enact a broad and consistent system of just and equitable laws. A State educational system has, therefore, been built up, of which the laws controlling medical practice are an integral part. * * *
>
> The medical profession approves the system which requires the same general professional education of all its members. The specialist upon the eye and the specialist upon the throat, the physician and the surgeon, must each undergo the same training and must pass the same State examination. One may select any specialty he chooses and may adopt any method of treatment which his educated judgment dictates. He may use large doses or small, massage or electricity. What the State requires for one body of practitioners it should not abate in favor of another.
>
> We may properly demand that every man and woman who enters upon the practice of the healing art should have adequate education. Here we are on ground that can not be misjudged or misrepresented. We ask no favors or special privileges. We are not the ones who are seeking to bring half-educated practitioners in by the back door. We simply ask equal requirements for all.

RELATION OF MEDICINE TO GENERAL EDUCATION.

Medical education is necessarily closely related to, or in a sense a part of, the system of general education. Heretofore, in the administration of entrance requirements the deans of medical colleges had most to do with high schools, which fortunately have been fairly well standardized. Now that medical colleges have advanced their entrance requirements to include one or more years of collegiate work, there comes the question: What is "collegiate" work? It is

a well-known fact that there are colleges so called which in reality are teaching little else than secondary school courses. In an effort to prevent the higher requirements adopted by medical colleges from interfering with the proper development of high schools, the Council on Medical Education, in its "Outline of the Essentials of an Acceptable Medical College," has inserted a clause that "college work should not be considered as such unless it has been preceded by a completed course of study in a standard four-year secondary school or its full educational equivalent." It is believed that observance of this rule will aid materially in the administration of the requirement of "college work." It will at once eliminate the short-cut secondary school colleges which endeavor to crowd the work of several years into three or four and, it is hoped, will help in the work of standardizing our colleges of liberal arts. The Council on Medical Education is now preparing for its own guidance a list of liberal arts colleges in which courses considered as essential prerequisites to the study of medicine are properly taught. No liberal-arts college will be included in the list which does not require for admission the completion of a standard four-year high-school course or its full educational equivalent.

ENTRANCE TO COLLEGE BY EXAMINATION.

The weakest point in the administration of satisfactory entrance requirements to medical and to other colleges is in the so-called "equivalent-examination" method. The examination is needed to test the knowledge of the occasional student whose courses in the secondary school are not regularly taken, but who may have covered as much ground as the graduates. This method of admitting students, however, has been taken advantage of by some "colleges" and an "easy" examination has been provided in order to admit large numbers of students who otherwise could not qualify.[1]

THOROUGH AND RELIABLE EXAMINATIONS ESSENTIAL.

The chief evil of the examination method lies in the multiplicity of agencies having to do with such examinations, where there could well be only one in each State. To ascertain the actual value of any

[1] The fraudulent methods by which an institution provided credentials for students seeking admission to a medical college in Chicago were discovered to be as follows: A set of questions with the answers filled in were furnished each "student," who was told to take them home, memorize the answers, and return in two weeks to take the "examination," where, of course, the same questions would be asked. In one instance, at least, when the time for the "examination" came around, the farce became even more ridiculous. The examiner deputized the preparatory school officer to conduct the examination; this he proceeded to do in the easiest manner for himself and for the students. Examination paper was given out and the students were instructed to take it home, write out the answers that had already been furnished them, and return the written papers the next day. Thus they did not even need to memorize the answers to the questions asked. Following this farce, nevertheless, these "students" were furnished with affidavits signed in the presence of a notary public, by a county superintendent of schools of an adjoining State, setting forth that these "students" had "passed" examinations in the required branches of the high-school curriculum.—Jour. Amer. Med. Assn., Feb. 7, 1914, p. 477.

examination there is a fairly reliable and simple test, which should be applied: Require documentary evidence as to when and in what school or schools the preliminary preparation was obtained. It is practically impossible for a student to pass an examination which actually proves that he has the equivalent of a standard high-school course, unless he can show evidence of four years or more of attendance in secondary schools, private tutoring, or of other legitimate means of preparation. For example, no student could pass a fair examination in algebra unless he has actually studied algebra. So when a student is found to have attended high school only one or two years and yet easily passes an "examination" in all the subjects of a complete four-year high-school course, then it can be seen at once that something is wrong either with the examination or the examiner. A routine method of verification of every credential presented by the student, whether it be a diploma or a certificate of examination, should be adopted by every well-regulated college.

In the enforcement of the four-year high-school standard, therefore, the medical colleges have been urged to secure for each student direct from the principal of the secondary school attended, a statement showing the courses taken by the student, the number of weeks covered in each course, the number of periods per week, the length of the period in minutes, and the final grade obtained. This simple routine procedure secures official and reliable evidence of the work done by the student, and without it no accurate idea can be obtained regarding his work.

ADMINISTRATION OF ENTRANCE REQUIREMENTS.

One of the best evidences that improved standards of preliminary education for entrance to medical colleges are becoming effective is that already fears are being expressed in some quarters that the standards may become so exacting as to hinder some well-qualified students from gaining admission. Most of the "fears," however, have emanated from medical colleges which are conducted more as business enterprises than as educational institutions—colleges whose methods of admitting students have so far exceeded the utmost bounds of "liberality" as to render void any entrance standard. The motives back of complaints from such sources are so apparent as to make the complaints unworthy of notice. In several instances, however, misgivings have been expressed from the most sincere motives, lest the entrance requirements to medical schools be made so rigid as to work a hardship in individual cases. Such statements have made it clear, however, that the speakers were in entire sympathy with the higher standards. Such statements are opportune as a warning rather than an indication that the rigidity feared is already being experienced. In fact, the requirements suggested by the

Council on Medical Education and other standardizing agencies are not inflexible, and the care of the exceptional cases is purely a matter of common-sense administration. The standard meanwhile is (*a*) completion of a standard four-year high-school education or its actual educational equivalent and, in addition, (*b*) one or more years of collegiate work equal to that taken in standard colleges of liberal arts, this collegiate work to include courses in physics, chemistry, and biology. The student is strongly urged also to secure a reading knowledge of French or German. A common-sense, conscientious enforcement of that standard is all that is asked. Legal bodies—the State licensing boards, for example—must fix and without discrimination adhere to a *minimum requirement*, and of course the closer an institution hugs to the minimum line the less room will there be for flexibility.

CHOICE OF A MEDICAL SCHOOL.

The choice of a medical school by the prospective medical student has perhaps never been so easy in this country as at the present time, since never before has there been so much reliable information available for his guidance. And there has never been a time when a careful and wise choice was so important; never have there been so many pitfalls or misleading paths for the unwary.

MEDICAL KNOWLEDGE MORE EXTENSIVE AND COMPLETE.

Up to a decade or two ago the training secured in any medical college was deemed sufficient to give the physician a start in his life work. That was before the days of the microscope in the practice of medicine and before the discovery of the microbic origin of many diseases. Then two years of teaching by such odd moments as busy doctors could spare from their practice was not looked upon as inadequate. At the present time, however, medicine is based on scientific knowledge, and without this knowledge the physicians of the future will be a failure. To get this knowledge the student needs a better preliminary education than formerly and must secure his medical education in a college which gives a four or five year course, which has a corps of expert, salaried teachers, expensively equipped laboratories, and an abundance of clinical material in dispensaries and hospitals.

STATE REQUIREMENTS MORE EXACTING.

Only a decade or two ago anyone was at liberty to begin medical practice in almost all States, there being no provision by law for standards of education or proficiency. Even in the few States in which registration was required almost any evidence of medical

training was sufficient to secure the license. During the last 15 or 20 years, however, the States have found it necessary to secure medical-practice acts in an effort to guarantee to the public that only those having a satisfactory training in medicine should be permitted to assume the responsibility for the care of the sick. Registration is now required in all States, and in most States certain definite qualifications are demanded before the physician can secure a license to practice. In most States the licensing boards are empowered to fix standards of preliminary and medical education. As shown in Table 4, on page 199, 25 States now require one or two years of collegiate work as the minimum standard of preliminary education and refuse to recognize medical colleges which do not come up to certain defined requirements regarding teachers, laboratories, and hospital equipment. In about 30 States, colleges which conform to such requirements are listed as "reputable" or "in good standing," and only graduates of such colleges are eligible to take the board's examination for license. All others are referred to as "not recognized," "not reputable," or "not in good standing."

NONRECOGNITION OF MEDICAL COLLEGES.

While in 1904 only 2 or 3 States were in any way refusing to recognize low-grade medical colleges, now diplomas issued by such colleges are not recognized in at least 30 States. This action by State licensing boards is the only legal power by which inferior medical colleges may be forced to make the needed improvements or to close their doors. Of the 107 medical colleges which were in session during the past year, 21 are not recognized in from 24 to 32 States.[1] Because of the requirement of two years of collegiate work as the minimum standard of preliminary education in 7 States, graduates of only 32 colleges may invariably count on being eligible to register in these 7 States. In 6 of these States graduates of 65 colleges are eligible for registration if the student has completed two or more years of work in an approved liberal-arts college prior to entering the medical school. Before choosing a medical college, therefore, a student should be sure he has the required preliminary education and that the college of his choice is recognized in all States.

The question is, How may the student secure the information needed on these matters? Some medical colleges advertise extensively in the newspapers and in popular magazines, and send out announcements and circulars containing very glowing, if not misleading statements. It is essential, therefore, that before choosing a medical school, the prospective student should secure further information from impartial and reliable sources, so that he may be sure he is not

[1] See Jour. Amer. Med. Assoc., May 23, 1914, p. 1650.

enticed into a poorly equipped institution to find on graduation that his diploma is not recognized in a large number of States.

An important matter which the student is always bound to consider is the expense. But it is well for him to know that to enter a low-grade medical college because the fees may be a little lower is poor economy. The truth is that in the same length of time, and often for even lower fees than he would pay in the poorly equipped institutions, he may acquire his education in some one of the best-equipped medical schools in the land. This refers particularly to the medical departments of State universities. On the other hand, the student should know that even if some of the better schools do charge higher fees, nevertheless, they spend on each student per year several times the amount of money that the student pays in tuition. Here, again, it would be poor economy to enter a low-standard college which depends on students' fees alone for its income, when for a few additional dollars each year he can enter a thoroughly equipped institution and get a far better medical training. Even should he be required to work his way through college in whole or in part, the opportunities for doing so are, as a rule, greater in the better than in the lower standard colleges. Generally, however, worthy students who are poor in purse are the very ones who appreciate not only the value of money, but also the value of the medical course they are getting. Such students are seldom beguiled into a poor college by alluring and misleading advertisements. On the other hand, many such students are found to be working all or part of their way through some of the highest grade institutions.

In order that the student may be thoroughly informed in any and all of the foregoing matters it would be well for him not only to secure the announcements of a number of colleges among which he may be able to choose, but also to secure reliable information from other sources. He should read the reports on medical education by the various standardizing agencies referred to in this article. At the present time, in order to be eligible to practice medicine in all States, the student must have completed two or more years of work in a standard liberal-arts college. He should then obtain his training in a medical school of unquestioned standing.

The student must bear in mind that in his preliminary and medical training he is laying the foundation for the rest of his life. If a year or two more is needed to enter one of the better medical colleges, he may count it as time well spent, since he is all the more sure of having laid a solid foundation. The medical profession in this country is extremely overcrowded, but there is always room for physicians who are thoroughly competent.

ALL-TIME CLINICAL PROFESSORS.

Those who have noted the marked development of laboratory instruction in medicine, following the employment by the colleges of expert, all-time professors in those branches, can readily appreciate the developments which would follow the securing of all-time professors in the clinical branches. It is now clearly recognized that those who are the best teachers in medical colleges are those whose life work, whose chief interest, is the welfare of the medical students. Medical teaching of the highest type is simply impossible when the teacher is dependent on his active practice for a livelihood and can give only fragments of his time to teaching.

That teachers of the laboratory branches should give their entire time to teaching and to a certain amount of research in the medical school is no longer disputed. That there needs to be a general reorganization of clinical teaching is also clearly understood. That clinical teachers should entirely refrain from the practice of their profession, however, is certainly not desirable. The experience gained from a general contact with patients in their homes and under varying conditions is one of the important qualifications of a good clinical teacher. It prevents him from falling into the unsympathetic, machine-like routine methods of the hospital. On the contrary, his practice keeps alive within him the bond of sympathy and consideration for the patient, a matter which every medical student should be taught to keep in mind. It is a qualification, meanwhile, which counts much in the development of a successful practice.

It is quite evident, therefore, that the need is for some method whereby the clinical professor's practice will be so limited as to prevent it from interfering with his duties as a teacher. For several years a number of medical colleges—notably those of Leland Stanford, Yale, Washington University (at St. Louis), and the Universities of California and Pennsylvania—have limited the practice of some of their clinical teachers to consultations in the hospital. The results have been excellent.

During the past year another plan has been suggested by the General Education Board, which has donated $1,500,000 to the Johns Hopkins University Medical Department to provide for placing the chairs of medicine, pediatrics, and surgery on a salaried basis. The holders of these chairs are to be paid definite salaries and will be free to practice as they may desire, but any fees collected are to go into the university treasury. Gifts of $750,000 and $500,000 for a like purpose have been given to Washington University Medical School at St. Louis and to Yale Medical School. This plan apparently has never been tried either in this country or abroad and pre-

sents some difficulties. There is a question as to the rank of a man who can be secured to give full time to college work and receive no compensation outside of a salary that is small compared with the incomes of leading practicing physicians.

The plan proposed by the General Education Board is commented on in an editorial in one of the leading medical journals,[1] extracts of which are as follows:

That the teaching of the clinical branches must be put more nearly on the basis of the teaching of the fundamental subjects, and that full-time teachers must be assigned to these subjects, is becoming more or less generally recognized. It is believed, however, that a large number of men engaged in practice will also be needed to give part of their time to teaching and research, though the number will probably not be so large as at present. When, however, the question is raised as to the rank of the man who can be secured to give full time to the college work and receive no compensation outside of the salary, there is considerable difference of opinion. If a man of exceptional ability has worked his way to the head of a department, does he disqualify himself for the position if he declines to give up the emoluments of general practice? Will not the attempt to restrict great clinical teachers to a salary result in the medical schools being compelled to accept men of less commanding ability and power? If a great clinician is willing to give half or two-thirds of his time to research and instruction, but wishes to reserve two or three hours a day for consulting work for which he can readily secure large fees, is there any real advantage gained in compelling him to surrender these fees to the university?

An important economic problem is involved here which can not at this time be discussed at length. It is important to say, however, that by placing the clinical chairs on a salaried basis it may become as difficult for the medical colleges to secure and retain the services of the best talent in the clinical departments as it is for our schools of technology and engineering to keep on their faculties the most skilled engineers, who are drawn away from teaching by the large emoluments offered by the commercial world. If the public service is of great value, are not the greater emoluments justifiable? Is it not the very experience these men gain in their public service which makes them so desirable on the faculties of the teaching institutions? It is an important question, therefore, whether it is best either for the public or for the college to restrict the work of these men.

A different plan, proposed by one of our leading educators, would place the principal burden of teaching in the clinical branches on the younger men, who would devote themselves for 10 or 15 years to teaching and research exclusively, at a modest but adequate and gradually increasing salary. The sum which it is proposed to pay to the clinical heads under the plan just discussed would support four or five men of this type. At the end of 10, 12, or 15 years some of these men by reason of their exceptional opportunities would have gained the knowledge and experience which would prove their exceptional ability as teachers. The college would thereby be enabled to make the wisest choice of those to be granted professorships or to be placed at the head of the various clinical departments. For these younger men there would be a constant inducement to strive for the higher positions open to them. And whether they reached the desired goal or not, they would be prepared by a broader knowledge and experience to render a larger service to humanity as strong consulting practitioners, so that, as a rule, they could demand at once large fees, and in this way secure adequate reward for their years of service to education. They would still retain their connection with the medical schools, however, giving a large amount of their time to research and teaching, for a small compensation.

[1] "A New Departure in Clinical Teaching," Jour. Amer. Med. Assoc., Mar. 14, 1914, p. 853.

There are some who feel that the latter plan possesses many advantages: It secure the undivided time and energy of men for teaching and research in the most productive period of their lives, and it effects an ideal pension system, or rather makes unnecessary any pension system. It closely approximates the actual practice in the clinical departments of the German universities, where, as a rule, one contentedly serves an apprenticeship for many years at a meager salary because of the hope of a large reward in honor and financial return on attainment of a professorship, which rarely comes to a man in Germany under 45 or 50. A large part of the best research work, and by far the greater part of the teaching in the German medical schools, has always been done by the younger men of this type.

In the annual report of the Council on Medical Education to the house of delegates of the American Medical Association,[1] among other comments on this subject the following statements are made:

In clinical work the head of the department and his associates must be three things—first, great physicians in their special field; second, trained teachers; and third, research workers. The medical school very properly demands that their clinical teachers be men who are recognized as authorities in their special fields, both by the profession and by the community. In the organization of a clinical department this fact must not be lost sight of, and whatever plan is adopted must make it possible for the clinical teachers to remain the great authorities in their special fields both in the eyes of the profession and of the public.

The plan adopted by the German universities has been on the whole most satisfactory. There, a professor in a clinical department is in every sense a university professor, just as much as the professor of chemistry or of physics. His university work commands his time. He must allow nothing to interfere with his teaching, his clinical work in the hospital, or his research, and he devotes on the average quite as much time to his university work as does his colleague in chemistry or in mathematics. In addition to this, however, he devotes some time each day to private practice by which he maintains his position before the profession and the public as a great specialist. This can be done without neglecting his university position. In fact, if he does not remain the great physician, he ceases to be of as much value either to his students or to his university. On the other hand, if he should neglect his university work because of the time he devoted to private practice, his services should be dispensed with.

A special committee composed of prominent clinical teachers is preparing a report on this important problem, which will doubtless be published during the next year. It will be awaited with interest.

GRADUATE COURSES IN PUBLIC HEALTH.

Graduate courses in public health have been established in connection with ten medical schools leading to a degree of doctor of public health[2] (Dr. P. H.), certified sanitarian (C. S.), master of science in public health (M. S. (P. H.)), or master of public health (M. P. H.). The course is for one year except at the Universities of Colorado, Michigan, Minnesota, and Wisconsin, where the course for the doctorate covers two years. Wisconsin gives a diploma in public health (D. P. H.) for a one-year course. The University of Cali-

[1] Jour. Amer. Med. Assoc., July 4, 1914, p. 86. [2] Or hygiene (University of Pennsylvania).

fornia grants a degree of graduate in public health (G. P. H.). These colleges are here shown in Table 7:

TABLE 7.—*Medical colleges giving courses in public health.*

Names of colleges.	Course started in—	Degree granted.	Years in course.	Degrees required for entrance.
University of Pennsylvania School of Medicine	1909	Dr. P. H.	1	M. D.
		C. S.	1	A. B. or B. S.
Medical School of Harvard University	1910	Dr. P. H.	1	A. B., B. S., or M. D.
University of Michigan, Department of Medicine and Surgery.	1912	M. S. (P. H.).	1	A. B. or B. S., and M. D.
		Dr. P. H.	2	
University of Wisconsin Medical School	1912	D. P. H.	1	M. D.
		Dr. P. H.	2	M. D.
University of Colorado School of Medicine [1]	1913	M. S. (P. H.).	1	A. B., B. S., or M. D.
		Dr. P. H.	2	
Detroit College of Medicine and Surgery	1913	M. P. H.	1	M. D.
University and Bellevue Hospital Medical College	1914	Dr. P. H.	1	M. D.
Tulane University School of Medicine	1914	Dr. P. H.	1	M. D.
University of Minnesota Medical School	1914	Dr. P. H.	2	M. D.
University of California Medical School [2]	1915	G. P. H.	1	M. D.

[1] The University of Colorado offers a course of one year leading to the degree of master of science in sanitary engineering to those holding the degree of B. S. in engineering.

[2] The University of California offers three courses leading to the degree of graduate in public health: A four-year course beginning with the junior collegiate year; a two-year course for graduates in sanitary engineering; and a course of one or one and a half years for graduates in medicine.

HOSPITAL INTERNESHIPS FOR RECENT MEDICAL GRADUATES.

The report of last year pointed out the importance of at least a year's experience in a hospital as an interne for every medical graduate before he enters practice. An investigation of hospitals has been started in order to prepare a list of those which are properly equipped and in position to furnish a satisfactory training. It is quite apparent that there is an ample number of hospitals which are so equipped, and of those which can easily become so, to provide acceptable internships for every medical graduate. Already about 75 or 80 per cent of graduates voluntarily secure these positions, and now five medical colleges have adopted a requirement that the student must have taken such internships before they are granted the degree of doctor of medicine. These colleges, and the session when the requirement became or will become effective, are as follows:

	Session.
University of Minnesota Medical School	1910–11
Leland Stanford Junior University School of Medicine	1914–15
Rush Medical College (University of Chicago)	1914–15
University of Vermont College of Medicine	1915–16
Northwestern University Medical School	1915–16

One State licensing board, that of Pennsylvania, now requires that every candidate, to be eligible for a license to practice medicine in that State, must have served at least one year as an interne in an approved hospital. The requirement became effective in 1914.

GRADUATE MEDICAL INSTRUCTION.

During the year a beginning has been made toward an investigation of graduate medical instruction in this country by a special committee appointed by the Council on Medical Education. The preliminary report of this committee [1] outlines the chief essentials to be considered. Says the report:

Rather than postgraduate education, it would better be described as graduate education, which is the term customarily used by universities. The objects of graduate medical instruction are:

1. To offer advanced instruction and opportunities for research.
2. To prepare physicians for special fields of work.
3. To offer opportunities for review, and for keeping in touch with the advances in medical science since the physician graduated.
4. To make up the deficiencies in previous medical education.

ADMISSION REQUIREMENTS.

It is evident from the discussion of the scope of graduate medical instruction that there can be no uniform admission requirements of an educational nature, such as may be reasonably imposed on undergraduate medical schools. Adequate preparation of an individual to take any given course should, however, be insisted on. As a matter of benefit to the public, any earnest, reputable practitioner, licensed by the proper authorities to practice medicine on the public, should be allowed to take such courses as he is qualified for by previous training and experience.

The recent and rapid improvement in undergraduate medical schools will result in turning into the profession hereafter better trained physicians. Something, however, needs to be done for the multitudes of doctors who are already in practice, many of whom graduated from medical schools which could not give them the desired training. In the interests of the communities where these doctors practice, nothing is more important than that graduate courses in medicine should be developed in this country, so that these doctors can take additional work, to the benefit both of themselves and of their patients. Some of these doctors have realized their needs sufficiently to sacrifice the time and money required to take graduate work abroad. How much more important it is that those who do not at present realize their needs, or those who can not afford these foreign trips, be given the opportunity nearer home to secure additional training.

CERTIFICATES.

It is generally recognized that the loose regulations about granting certificates for postgraduate work often result in a definite evil. Such a certificate usually has a form similar to a diploma. It is suitable for display and is calculated to impress the public. Ordinary people are apt to regard such a certificate, displayed in a doctor's office, in much the same light as a degree, and they look on its possessor as a full fledged specialist in any subject mentioned on the certificate. Advantage is taken of this fact by unscrupulous physicians who pose as specialists without any real justification in the knowledge or experience they have gained. Such practice is little short of quackery. The graduate school should under no circumstances be conducted or considered as a "credential mill."

PROPRIETARY SCHOOLS.

While graduate medical instruction has been taken up by many of the regular medical schools, there have arisen a number of proprietary postgraduate schools.

[1] Amer. Med. Assoc. Bulletin, May 15, 1914, p. 313.

Some of these are doing excellent work and have satisfactory ideals, but many are little better than commercial enterprises for the direct or indirect financial benefit of those in control. The situation in regard to proprietary graduate schools is the same as existed formerly among regular medical schools. Possibly conditions are worse. There are the same objections to proprietary graduate medical schools as to proprietary undergraduate schools. It is to be hoped that those which are really doing good work will see the advantage of association with a medical school or university of good standing. The standards of instruction and the ideals of the graduate school should be fully as high as those of the undergraduate medical school. Public opinion will frown on commercialism in graduate medical instruction just as much as it does on commercialism in undergraduate teaching.

In the light of the above statements it is encouraging to know that within the last few years five universities have established graduate schools of medicine. These graduate schools and their location are as follows:

	Location.
University of Alabama Graduate School of Medicine	Birmingham.
University of California Graduate School of Medicine	Los Angeles.
Tulane University Postgraduate School of Medicine	New Orleans.
Harvard University Graduate School of Medicine	Boston.
University of Minnesota Graduate School of Medicine	Minneapolis.

The opening of such schools by high-grade universities is very encouraging and gives assurance that graduate medical instruction on a high plane is rapidly becoming more available in this country.

IN CONCLUSION.

The remarkable progress of the last several years is an assurance of a continued progress in future. As the reading public becomes more generally informed regarding the conditions and needs of medical education and the practice of the healing art, the laws governing these matters will inevitably improve and the public interests be better safeguarded. It is surely a matter of vital interest to every citizen of this great country that those who are to assume the most responsible of tasks—the care of the sick—shall have obtained a thorough training in modern medicine. Furthermore, the citizens of this country have a right to expect that such laws will be passed as will prevent the uneducated and unqualified from imposing on the public.

CHAPTER IX.

MEDICAL EDUCATION IN THE HOMEOPATHIC SCHOOL OF MEDICINE.

By W. A. Dewey, M. D.,
Secretary of the Council on Medical Education of the American Institute of Homeopathy.

Contents.—Establishment and organization of homeopathic institutions—Hospital inspection and grading—Homeopathic medical research—List of schools.

ESTABLISHMENT AND ORGANIZATION OF HOMEOPATHIC INSTITUTIONS.

Homeopathy, the system of medicine founded by Samuel Hahnemann, a German physician, has had special influence in the United States, where the system was introduced nearly 100 years ago. The early disciples of homeopathy were practitioners educated in general medicine; scholars who recognized the importance of education and research in the upbuilding of any system of medicine, especially one which sought to invade the existing medical field and disturb ancient traditions. Accordingly, early attention was given to the training of practitioners. The first homeopathic teaching institution in the United States, the North American Academy of the Healing Art, was established at Allentown, Pa., in 1835. The American Institute of Homeopathy, the oldest national medical society in the United States, was established in 1844 for the purpose of encouraging and preserving the contributions made to the materia medica of the homeopathic school of medicine, and one of the requisites for membership was that the candidate be qualified in medicine, especially in homeopathy. Thus, there was established early in the history of the school two departments, medical education and research investigation.

As the system of homeopathy grew, the number of institutions increased with considerable rapidity, and at one time there were between 20 and 25 in existence throughout the country. The distribution of these was not always along the line of wisdom; for instance, there were at one time in the city of Chicago six medical colleges teaching the homeopathic system of medicine.

All the teaching institutions of the school were under the direct supervision of the national organization through what was termed the intercollegiate committee, which provided and controlled entrance, curriculum, and graduation requirements. The entrance of

State legislation into the field of medicine, especially medical education, required the solving of new problems, and there was established in the place of the intercollegiate committee a permanent medical committee entitled "the council on medical education of the American Institute of Homeopathy." The council on medical education is at present composed of Dr. George Royal, Des Moines, Iowa, professor of materia medica and therapeutics of the Homeopathic Medical College of Iowa State University, chairman; Dr. Willis A. Dewey, Ann Arbor, Mich., professor of materia medica and therapeutics of the Homeopathic Medical College of the University of Michigan, secretary; Dr. John P. Sutherland, Boston, Mass., professor of theory and practice of medicine, Boston University School of Medicine; Dr. John B. Garrison, New York, laryngologist to the Laura Franklin Free Hospital for Children; Dr. H. H. Baxter, Cleveland, Ohio, former member of the Ohio State Board of Medical Examiners; and Dr. C. E. Sawyer, of Marion, Ohio, special ex officio member.

The council on medical education last year issued a report on the colleges of the homeopathic school, which was heartily welcomed and accepted by State board members as being the authoritative expression of the fitness of the institutions of the homeopathic medical school. Since the issuance of this report there has been much improvement in the teaching efficiency of all the colleges. The Ohio college, formerly located at Cleveland, has been removed to Columbus, where it becomes a department of the Ohio State University, under the control of the trustees of that institution. It has entered upon the year's work with a new faculty, new buildings, hospital facilities, and an encouraging class of students. The Kansas City institution is being placed upon a permanent basis. Other homeopathic colleges have been improved by new buildings, facilities, teaching staffs, equipment, or endowment. At a conservative estimate, during the year 1913–14 not less than $1,000,000 has been expended in the improvement of the several homeopathic teaching institutions.

There are at the present time 10 medical colleges devoted to the teaching of homeopathic medicine, distributed from Boston to San Francisco. The entrance requirements, curricula, and general management are supervised by the council on medical education, subject to the laws of the various States wherein the colleges are located. A homeopathic college claims the honor of having been the first to establish a compulsory three years' course, and the first to require four years as the minimum college term.[1] In several a premedical year has been established, in which students are required

[1] Boston University School of Medicine in 1873 offered a graded course of three years, and in 1877 it made this three years' course compulsory. In 1878 it offered a four years' medical course, and in 1890 it made this course compulsory. In 1907 it instituted an optional five years' course.

to do work that is under the direction and supervision of the medical faculty of the college. The University of Michigan Homeopathic Medical College has had this requirement for two years. In the Hahnemann Medical College of Chicago there is a fifth year which is carried on by a special faculty in the medical college itself. In the fall of 1915 the premedical year becomes operative in Ohio State University Homeopathic Medical College. In the Hahnemann Medical College of Philadelphia, besides the work of a premedical year, carried on within its walls, a fifth or hospital year is required as a prerequisite to securing a license to practice. This is in accordance with the Pennsylvania law. Homeopathic colleges connected with universities, of which there are four, and two others by special arrangement with literary institutions, offer combined courses, making it possible for students to obtain a literary and a medical degree in six or seven years. During the year 1913–14 there were in attendance at these colleges 941 students. This is the largest number since 1907, when there were 18 colleges instead of 10.

It is the aim of homeopathic colleges to educate physicians in the broadest acceptation of the term, rather than specialists or scientists. The council on medical education of the American Institute of Homeopathy has made no attempt to grade teaching institutions on a classification basis, but endeavors so to improve and equip them that every one will give the highest grade of medical teaching and training. The colleges of the homeopathic school report to the council on medical education of the American Institute of Homeopathy; this organization is therefore the only private source from which reliable data with regard to them may be secured. The function of the council is to insist upon an acceptable standard being maintained in each college, which shall harmonize with the laws in the States wherein the colleges are located.

HOSPITAL INSPECTION AND GRADING.

The council on medical education recognizes that the necessity is soon to arise for a graduate to have one year of hospital experience before a diploma, or at least a license to practice, be granted him. Thus it is necessary to have the hospitals which are to undertake this work of finishing the student's training properly equipped and conducted. The council is now engaged, through a committee appointed for the special purpose, in the work of hospital inspection and grading which is to indicate the suitability of a given hospital to receive and train properly educated men and women for medical practice. A minimum scale and requirements have been adopted to which all must conform. A report of this work will soon be issued.

The council of education has under way a survey of the medical practice of each State in order to determine the approximate propor-

tion of its inhabitants employing homeopathic practice. This survey has been completed in one of the typical large States with the result that approximately 35 per cent of the population are reported as employing the homeopathic system of practice and 48 per cent are not unfavorably disposed toward it.

HOMEOPATHIC MEDICAL RESEARCH.

The earlier transactions of the American Institute of Homeopathy dealt almost exclusively with the work of drug testing on the healthy human body, which is one of the fundamentals of the homeopathic system, and continued attention is still given to this field.

This work of the study of drug action has been placed by the national organization in the hands of a special committee or board known as the American Institute of Drug Proving, which is incorporated under Federal laws. The members of this board are at present as follows: Dr. J. B. Gregg Custis, Washington, D. C., member of the board of medical supervisors of the District of Columbia, chairman; Dr. E. H. Wolcott, Rochester, N. Y.; Dr. George Royal, Des Moines, Iowa, professor of materia medica and therapeutics, Homeopathic Medical College of Iowa State University; Dr. W. A. Dewey, professor of materia medica and therapeutics, Homeopathic Medical College, University of Michigan; Dr. John P. Sutherland, Boston, Mass., professor of theory and practice of medicine, Boston University School of Medicine; Dr. Rudolph F. Rabe, New York, professor of materia medica, New York Homeopathic Medical College and Flower Hospital; and Dr. Benjamin F. Bailey, Lincoln, Nebr. The committee is carrying on the work of drug testing at the present time.

There have been recently equipped, in connection with two homeopathic colleges, large laboratories for the purpose of work in the field of drug proving, and another is about to open.

There has also been much work done in other laboratories connected with the homeopathic schools. The question of vaccines is at the present time receiving much attention, with special reference to the action of the various preservatives in the manufacture of these substances, a question that has agitated the homeopathic school for several years.

LIST OF SCHOOLS.

The introduction to the "Educational Report of the Council on Medical Education of the American Institute of Homeopathy for the Years 1912–13" states:

> The council on medical education desires to present to the profession a report of the teaching institutions of the homeopathic school of medicine. This report is based upon actual inspection and investigation made by members of the council, in company with representatives of State boards and organizations of our own school of

medicine, and while all the data obtained, for instance, lists of laboratory apparatus, etc., are not here presented, we believe sufficient is given to show that the colleges of the homeopathic school of medicine not only are fully equipped to give comprehensive and thorough medical education, but add to this general medical education a knowledge of treating and curing the sick on scientific, or what is equivalent thereto, homeopathic principles.

The list of institutions described in this report, with a summary of the enrollment figures revised for 1914, is as follows:

Students in homeopathic medical colleges, 1913–14.

College.	Total.	Seniors.	Juniors.	Sophomores.	Freshmen.	Special.	Graduates.
Boston University School of Medicine, Boston, Mass.	121	22	22	24	46	7	22
New York Homeopathic Medical College and Flower Hospital, New York, N. Y.	356	53	68	65	61	109	43
New York Medical College for Women, New York, N. Y.	42	7	9	12	14	0	7
Hahnemann Medical College, Philadelphia, Pa.	104	14	21	21	37	11	14
Cleveland-Pulte Medical College, Cleveland, Ohio	56	11	19	12	14	0	11
University of Michigan, Homeopathic Medical College, Ann Arbor, Mich.	80	24	22	12	18	4	23
Hahnemann Medical College and Hospital, Chicago, Ill.	95	17	21	22	32	3	17
College of Homeopathic Medicine of the State University of Iowa, Iowa City, Iowa	6	0	2	0	3	1	0
Kansas City Hahnemann Medical College, Kansas City, Mo.	41	13	2	9	17	0	13
Hahnemann Medical College of the Pacific, San Francisco, Cal.	40	7	6	10	17	0	5

Total number of students in 1913–14, 941.
Total number of graduates in 1914, 155.

CHAPTER X.

RECENT PROGRESS IN LEGAL EDUCATION.

By Henry M. Bates,
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Contents.—Previous reports on legal education—Improvement in law schools—Law schools versus law offices in legal training—Requirements for graduation—Content of the law-school curriculum—Teaching practice and procedure—Methods of teaching—Admission to the bar—The association of American law schools—The Carnegie Foundation inquiry.

PREVIOUS REPORTS ON LEGAL EDUCATION.

The Bureau of Education has published annually statistics relating to law schools, and these indicate, in outline at least, the main development of formal legal education in this country. But not since 1893 has the bureau published any comprehensive report concerning the nonstatistical aspects of legal education. In that year the Bureau of Education, as a part of a cooperative arrangement with the committee on legal education of the American Bar Association, published in its annual volume the admirable report of the committee, which it is understood was in the main written by the late Dr. Hammond, of St. Louis. In resuming the publication of some discussion of the statistical material and in commenting upon the tendencies and needs of legal education, it is hoped to provoke more general discussion of this important subject, and thus to aid in the many movements that during the last few years have been making for a marked advance in the standards of legal education in the United States. In view of the long interval since the last report of this nature, it seems wise this year to treat the statistical matter only in a general way and to stress the lines of general development in this field, pointing out wherein the greater changes have come, indicating the defects in legal education as it exists to-day, and making some suggestions as to changes and possible improvements for the future.

The report of 1893 was devoted mainly to (1) a statement of the requirements for admission in the law schools of the country; (2) a statement and discussion of the subjects treated in the curricula of the law schools of the country; and (3) to an extended and scholarly discussion of the desirability of a more systematic treatment of law in legal education and in law books. It is proposed now to comment upon these three topics with the purpose of showing the changes in

conditions that have occurred during the past 25 years, and especially to give consideration to Dr. Hammond's plea for a more systematic legal education, by which he meant a curriculum that should scientifically reduce the body of law to its elements, to be followed by an instruction elementary and systematic in the sense thus indicated. After a discussion of these subjects an attempt will be made to consider some of the problems which seem to require early solution.

IMPROVEMENT IN LAW SCHOOLS.

At the outset it may be remarked that very great progress has been made in almost every phase of legal education. It must be admitted, however, that there was sore need of such progress, and that the greater part of it has occurred, roughly speaking, during the second half of the period indicated. In 1893 there were few law schools in the United States giving a really scientific legal education. Furthermore, an approximate estimate indicates that at that time at least half of the men going to the American bar were not attendants at any law school, but were deriving their legal education from private study or from study in offices. Poor as American law schools then were, they nevertheless gave to their students a much more orderly, scientific, and intelligent view of the law than it is possible for ordinary men to derive from unsystematic and practically unregulated reading in private or in law offices. Unquestionably the fact that so large a portion of the American bar then and before then had been trained in this unsatisfactory way accounts for many of the defects in the practice and administration of law which have been the objects of such widespread and violent criticism during the last few years. During the period covered in the present report there has been a rapidly growing tendency for the prospective lawyer to seek a law school for his legal education, and fortunately there has been concurrently an equally marked improvement in American law schools. In these two tendencies lies the greatest hope for a better, simpler, and more systematized body of law, and for a more direct, speedy, and just administration of the law in the future.

Taking up the three points of the 1893 report in order, it is to be noted first that at that date no law school in the country required that the applicant for admission to its course should have completed any college work. The first complete step in this direction was taken by the Harvard Law School in 1899, when it put into force a requirement of the completion of a college course. As a matter of fact, the majority of Harvard law students for a number of years had been college graduates, but the formal announcement of this requirement gave a distinct impulse to the advance in prelegal requirements in law schools throughout the country. The better

law schools then required only a high-school education before the beginning of law study, and not all even of these better schools were enforcing this requirement in letter and spirit. A common practice was to admit students subject to the condition of completing the high-school course after admission. This practice of placing an extra heavy burden upon the students whose equipment was below par was absurd, illogical, and most unfortunate in its results.

Though much still remains to be done, the advance in this respect is marked and gratifying. Harvard still requires the completion of the college course as prerequisite to admission to the law school. Pennsylvania has announced the enforcement of this requirement beginning with the year 1915–16. Columbia, Chicago, Stanford, Western Reserve, and California require the completion of the college course or of three years of such course upon a combined college-law curriculum. Cornell, Michigan, Wisconsin, Minnesota, Illinois, Missouri, Nebraska, the University of the Philippines, and some others require the completion of two years of college work for admission. A number of other institutions require one year of college work. North Dakota has announced the requirement of two years beginning in the fall of 1917, and many other law schools are contemplating similar requirements. It thus appears that all or nearly all of the university law schools of the country are now, or within two years will be, requiring at least two years of college work. Undoubtedly the effect of this requirement will be to lead many students who enter college with the purpose of taking only the minimum amount, i. e., two years, to go on to the completion of three or four years of work.

These facts are of course most gratifying. They are accompanied, however, by a situation which is full of menace for the future and which, it is submitted, it is the duty of the American and of State bar associations to grapple with earnestly, intelligently, and courageously. That danger lies in the fact that a large number of law schools are private and proprietary, avowedly or actually. Many of these schools are night schools. By this it is not intended to say that all night schools are bad; but obviously, under ordinary conditions at least, a school conducted upon the night basis, whose students and faculty are engaged in other work during the larger portion of their working hours, can not hope to and in fact does not do as much work or as good work as the better day schools are accomplishing. Many of these proprietary schools are owned and managed by conscientious and intelligent men, but it is quite obvious that, as these schools must be run for profit and could not continue to be operated at a loss, their proprietors must consider the extent of their patronage. This inevitably means the maintenance of low

standards of admission and low standards of work in the school in the majority of cases. The larger interests of the State, the profession, and the requirements of justice can not and certainly are not taken into consideration to anything like the extent to which they are considered in the law schools actually maintained by the stronger universities of the country. This situation has prevented the raising of admission standards in schools of this type. The inevitable consequence will be that the student who cares little for general education, for culture, and for breadth of view, but who aims only at getting to the bar for money-making purposes in the shortest possible time and at the least possible expenditure of effort and money will attend the school with low standards and low requirements. Unless this tendency is checked, much of the good that the better university schools are attempting to accomplish, at the expense of loss in students and money to themselves, will be offset by the schools run mainly for revenue only. This is no idle speculation, but a real condition, which must be grappled with vigorously and promptly. The greater number of these proprietary schools profess to require the completion of a high-school course as prerequisite to admission to law study. In reality the requirement is not enforced in most of these schools. In many of them, students who have had only a partial high-school course or none at all are admitted, subject to "conditions." These "conditions" are removed by taking examinations from time to time on the basis of study pursued in private, and sometimes in coaching schools maintained by the law school for this purpose.

LAW SCHOOLS VERSUS LAW OFFICES IN LEGAL TRAINING.

In 1892 the committee on legal education of the American Bar Association reported that it had no means of ascertaining the number of students who were pursuing their studies in offices, nor the courses of study pursued by them. The 1911 report of the Carnegie Foundation for the Advancement of Teaching contained an estimate that perhaps one-third of the men then going to the bar had studied in private or in law offices. This was probably somewhat of an overestimate; certainly the proportion of such students is smaller now. In nearly all of the entire tier of Northern States, and in the middle group extending from ocean to ocean, comparatively few students are now thus preparing for the bar. In the State of Michigan, for example, less than 5 per cent of those admitted to the bar during the past five years have been without training in law schools. In some of the Southern States the practice of preparing by office study still persists, but with the notable increase in good law schools in the South during the last few years a speedy decline may be expected

in the number of office-trained applicants for admission to the bar. This marked change in tendency is cause for unqualified gratification. Even at its best, in the old days this method of preparation for the bar was decidedly bad. Unquestionably, the training thus obtained tended to make the lawyer dogmatic, legalistic, and formalistic. He perhaps became an expert dialectician and knew a great deal of law. But, generally speaking, he knew it in an unscientific way, he had little conception of its historical and evolutionary character, and he stood like adamant against the changes desired by society in general and made necessary by the continuous process of change in business, industry, and the general life of the community. With the development of the modern law office, the conditions under which office study was conducted became much worse. With the tendency to division of labor that has invaded even the professions, with modern mechanical methods of efficiency, with the intensity and pressure of modern law practice, the lawyer has had little time to give to advising, examining, and otherwise aiding the student in his office. For these and many other reasons it is to be hoped that the States will soon require study in reputable law schools as prerequisite to admission to the bar. In medicine, either as a requirement of law or as a matter of well-settled practice, every State in the Union now requires that the applicant for a license to practice medicine must be a graduate of an accepted medical school. There is absolutely no sound reason for this requirement that does not apply equally or in greater measure to the method of preparation for admission to the bar.

REQUIREMENTS FOR GRADUATION.

Within the law schools advances have been as gratifying as has been the increase in entrance requirements. Of the 58 law schools concerning which statistics were given in the report for 1892, only 9 offered a three years' course of instruction, and there is good reason to believe that not all of these 9 schools were rigorously requiring three years of study for graduation. At that time at least 5 schools were conferring degrees at the end of one year of study, and about 35 schools gave only two years of instruction. In the report of 1893 it was said:

> In considering the subject of a course of study in American law schools the committee are embarrassed by the fact that a longer course than two years is impracticable for the greater number of schools. The competition of life is growing stronger all the time, and is urging young men into active, breadwinning occupations early in life. The youth of America, as a rule, wish to be independent. The sentiment of the profession and the public will not sustain, at least in some parts of the country, a longer course than two years, and even this is impracticable in some places.
>
> And yet it will take a student at least two years under present methods to acquire a competent knowledge of the subjects of private law referred to, to fit him for practice. There is little time he can devote to public law, the history and theory of the law, and

the science of government, unless our methods of instruction are so improved as to save the time now given to the mere memorizing of practical rules and points of law, of no real service to the beginner, and to employ it on these topics, indispensable in a true system of legal education.

The committee then added:

Yet, recognizing the fact that a course of more than two years is impracticable for most, the committee recommend:

1. That for those to whom a longer course of study is possible, provision be made in the schools for postgraduate courses, where the subjects of general jurisprudence and public law shall be taught.

2. A system of electives, now found necessary in almost every branch of education by reason of the extent of human learning, and already existing in several of the schools, in which shall be required in addition to the usual course in private law already described, to pursue at least a certain number of subjects in public law, international law, the history and theory of the law, comparative jurisprudence, and the science of government.

3. Better preliminary training, if practicable. A large proportion of the schools require no entrance examination, and in none of them is the entrance examination equivalent to that for the A. B. degree in any reputable college in the country.

Much progress has been made since then. The Bureau of Education gives statistical data for the year 1913–14 for 122 law schools. Of these only one reports a curriculum of but one year, 17 have curricula of two years, and the remaining schools require at least three years for graduation.[1] Several of the stronger schools, including Harvard, Columbia, Yale, Pennsylvania, Michigan, Chicago, Wisconsin, Minnesota, Stanford, and California, are offering courses that would require from four to six years to complete at the normal rate. In the University of Michigan, for example, including a group of studies which might be regarded perhaps as extralegal, such as the history of English law, a course in the continental legal philosophies, Roman law, public international law, the theory of practice and legislation, a full six years would be required for the completion of all of the work offered. This has meant, of course, a wide development of the elective system recommended in the report of 1893. In the schools in which the elective system has been developed, it has been the policy to require the taking of at least some of the subjects which may be regarded as fundamental, such as contracts, torts, property, and pleading. Nominally, there is considerable variation in the different schools in which the elective principle is recognized as to the extent to which that principle is followed. In practice the conditions do not differ materially.

When the elective plan in law schools was still young, it was feared by some that it would produce a fragmentary and partial legal training for many students. The objections offered were of two principal kinds: First, that the students would not make wise choice among

[1] Among these are 11 evening schools requiring four years.

the courses offered; that they would be inclined to follow the lines of least resistance, or in other words, to take easy courses without reference to the subject, or that they would omit fundamental or important practical courses. The second objection perhaps grows out of the first, namely, that as applicants for admission to the bar examinations, and later as practicing lawyers, the men would be handicapped by reason of their ignorance of those subjects not elected. Neither of these objections has proved to be well founded. Students on the whole have shown good judgment in making their elections. They have sought the advice of members of the faculty and of lawyers, and moreover, succeeding classes have helped each other to obtain the best results in this matter. As to the second objection, it is undoubtedly true that more applicants for admission to the bar fail upon examination than formerly. This is clearly due, however, to the great and commendable advance made in most of the States during the past 15 years in requiring some proof worthy of the name of the mastery of the principles of law on the part of those seeking admission to the bar. There has been a very decided raising of the standards in this respect, though much yet remains to be done. Unquestionably, law graduates of the present day are on the average much better prepared for the practice of law than were those of 20 or 25 years ago. The increasing emphasis on training in legal thinking and legal analysis has fitted the student to study by himself those subjects which he did not take in the law school.

Nevertheless, there has been a growing feeling on the part of law teachers that the course ought if possible to be increased to four years. Ten years ago a suggestion that this might be done was greeted with disapprobation, if not with derision, by some of the best law teachers in the country. But at the annual meeting of the Association of American Law Schools, held in Chicago in December, 1914, the policy of requiring four years of law study, though only tentatively proposed, was received and discussed seriously and with much favor. There are obvious objections. The time and expense necessary for the completion of the law course in any of the better law schools to-day is already a serious burden to a poor man. There are strong economic and social reasons why the lawyer should begin to be self-supporting and to be able to maintain a family as early as possible. Moreover, it is desirable that a lawyer should begin his practice while he is still adaptable mentally and otherwise. Nevertheless, the great expansion of the body of our law, the increasing difficulty of meeting the requirements of modern business and legal conditions, and the increasingly insistent demand from the laity for a higher degree of professional efficiency are exerting a pressure for a longer law course which it may be difficult to resist. Perhaps it should be added that the increase in the volume of law is by no

means merely cumulative. While the old principles of justice may always endure, certainly the new conditions in modern society call for different applications of them. As a result, we have great fields of law which are to all intents new, and these fields must be explored by anyone who would become a thoroughly competent lawyer. It is necessary only to mention the vast growth in public law, including particularly some phases of constitutional law and the law dealing with public corporations and public utilities, to enforce the point made. Moreover, the law of torts is undergoing radical and swift changes; property law, at least in the larger cities, is becoming more and more complicated; and the vast body of statutory law can no longer be safely or properly ignored in any adequate legal education.

To some extent this pressure for a longer curriculum has been met in several of the schools by offering an optional fourth year, leading to a second degree in law. This will do very little to solve the problem, however. In the first place, if the law schools grant the first degree for three years of study, and if the laws of the several States permit one to practice after only three years of study, very few students will feel inclined or able to take the fourth year. Competition decisively settles the problem for them in favor of the shorter course. Moreover, nearly all of those few who take the fourth year of law work in such schools as Harvard or Michigan do so to prepare themselves for the teaching of law or for some other special purpose. It will require compulsory action by the schools and probably by the laws of the several States relating to admission to the bar to effect a general lengthening of the course. This is true despite the fact that many students themselves feel the need of a longer period of legal study and have said that they wished the law school would take the forward step and require a fourth year of work. The summer session or the summer quarter of law work now offered in several schools offers a partial solution of this problem, and not a few students are already availing themselves of this means of acquiring a more extensive and thorough legal training.

CONTENT OF THE LAW SCHOOL CURRICULUM.

Akin to the topic just treated is that of the content of the law school curriculum. In this respect, too, there has been much improvement since 1893. The report of that year criticised the law curricula of the country as too closely confined to practical private law and to the technical rather than the scientific or philosophic view of law. It is and always must remain the main business of a law school to treat thoroughly the principal branches of private law. But among the leaders in legal education at least there is a growing tendency to supplement this study with at least some view of law in

its larger and philosophic aspects. Among those who favor such a reform, some would give instruction at the outset of the course in the elements of law in the scientific sense of that term, including a study of jurisprudence and perhaps of the leading philosophies of law, and then build the superstructure in private law upon these as a foundation. A strong argument may be made for this view. In practice, however, this method has thus far been found difficult of realization, if not quite ineffective. Consequently we find the courses in legal history, legal philosophy, jurisprudence, and comparative law offered to seniors or to graduate students. A priori one might suppose that the scientific method of teaching law would be to begin with the elements of law systematically arranged and to make a study of jurisprudence as a basis for the study of any particular system of law. It may be doubted, however, whether this plan will ever succeed, at least for the English common law. It has been amply demonstrated that nothing is more difficult for the beginning student to master than the abstract, in whatever science he may be pursuing. The average student, even among well-trained men, finds it difficult to understand and retain mere abstract juristic principles. Once he has studied a particular system of law and made the myriad applications of it which the modern method of legal education requires, he is in a position to approach intelligently jurisprudence as a science and to enter into the spirit of legal philosophy.

Since the publication of the committee report of 1893 nearly all of the stronger university law schools have added to their curricula courses in administrative law, private international law, public officers, and some other associated topics. Public international law is taught in two or three law schools regularly, but is made available to law students in a large number of other law schools that are departments of universities in which this topic is treated in the college or arts department. The comment of the 1893 report was that the confining of the curriculum to merely private-law subjects tended to produce an unphilosophic, narrow, and legalistic attitude toward law. The addition since then of the courses indicated in this and the preceding paragraph has done something at least to correct this tendency. Perhaps even more in the same direction has been accomplished by increasing the emphasis throughout the curriculum upon the historical and evolutionary development of law.

TEACHING PRACTICE AND PROCEDURE.

The matter of teaching practice and procedure in law schools has been a serious problem for a number of years. The report of 1893 states that the moot court was then "one of the most common, as well as the most useful, exercises a student can practice." Never-

theless, some very strong indictments have been brought against the moot court, at least in its early form. It has been vigorously argued that practice can not be successfully taught in the law school, and that therefore time given to that exercise might be much better employed in teaching substantive law, with pleading and evidence added. Despite these objections, an increasing amount of time and effort has been given to the whole subject of teaching procedure, and while there are still differences of opinion about the matter, it may fairly be said that in the more highly developed form of recent years the practice court and the practice courses have met most of the early objections and are recognized to be legitimate and very important parts of the curriculum.

In the main the objections have been based upon the supposition that the principal function of the moot or practice court was to offer a sort of advance rehearsal of the dramatic features of a law trial and that as it was impossible to reproduce the conditions under which actual cases are tried the effort must in large measure fail. No doubt there are moot courts still conducted on this plan, but in the stronger schools the practice court of to-day proposes for itself a very different function. The practice court is but the final stage in the teaching of practice. The general principles of practice are taught by means of the study of scientifically collected cases on the subject, and then the preparation of process and pleadings and the trial of cases follow much as laboratory work follows the study of theory in the sciences. The present tendency therefore is to make of the practice court not at all an imitation of or mere rehearsal for actual court work, but a stage in the educational process. While the successive steps of a trial are gone through with under conditions sufficiently accurate to make the experience valuable as an initiation into trial work, the main purpose is to show how these steps are correlated and brought together in the integral thing which we call a trial. It may well be that some schools are so circumstanced with reference to the type of work they do and the immediate occupation of most of their graduates that it is not important for them to do this work. Some variation indeed in the methods of law schools throughout the curriculum is desirable. Certainly some of the schools that have put the study and teaching of procedure upon a scientific basis are contributing to the general cause of procedural reform and are turning out students who show the value of this training.[1]

[1] For discussions of this subject see Proceedings of the Association of American Law Schools as printed in the annual volumes of the American Bar Association reports. See especially the paper by Dean James Parker Hall, in the Amer. Bar Assoc. Proc. for 1905, the paper of Prof. Edson R. Sunderland, in the Amer. Bar Assoc. Proc. of 1913, and a paper printed in the Illinois Bar Assoc. Proc., 1914, at p. 399.

METHODS OF TEACHING.

In 1893 the American Bar Association committee gave some account of the underlying theories and the methods of the three principal methods of teaching law, namely, the lecture system, the textbook system, and the case system. The advantages and disadvantages of these were pointed out, but no decided preference was indicated for any one of them. At that time all three methods were still strongly entrenched, though the lecture system was undoubtedly losing in the contest for supremacy. To-day the case method forms the principal, if not the exclusive, method of teaching in nearly all of the stronger law schools of the country. Lectures on special subjects are of course still delivered in all law schools, and this doubtless always will be the case. But for staple instruction in the important branches of the common law the case has approved itself as the best available material for use practically everywhere. There are still some schools the catalogues of which announce that they are not wedded to any one system of instruction, but make a judicious use of all of the approved types, stressing each as the nature of the subject may require. No good school whose faculty is capable of independent thinking would nail to the mast the flag of any particular instructional method as the one to sink or swim with. As the law changes, methods of teaching it also must change. Even among followers of the so-called case method, there are wide variations among individual teachers. A truly scientifically prepared textbook will always have its place for teachers, students, and practicing lawyers, and the lecture is still necessary for some special topics. It is respectfully submitted, however, that of all ineffective, because the most incomplete, superficial, and confused of methods, the so-called "combination method" is the worst. It is neither fish, flesh, nor fowl. From it the student must fail to receive the orderly, coordinated view of the subject which should be given to him by a good law school. No one view of the law is given in its entirety. In this so-called combination method the case is in reality used merely as an illustration of the principle stated abstractly in the lecture or textbook. So used the case is of course not wholly without value. But the student who has followed this method has failed almost completely to receive a view of law and a training in legal thinking to be obtained from the study of its primary statement. The report of 1893 objected to calling the case the "source of law." In one sense the objection is well founded, but at least it may be said that in Anglo-American law the case is the primary and the only authoritative statement of law. For this reason, and because the lawyer is to deal with the material in this form throughout his professional life, it is highly important that he get a first-hand, system-

tic, and comprehensive instruction and training in the use of this material. A few cases, or for that matter many cases, used illustratively will wholly fail to produce this result.

For the reasons thus briefly indicated the case method is to-day the principal method of instruction in the great majority of the schools of this country. It may indeed be desirable, as was said in the report of 1893, that law be taught more with a view to its elements and to its system than is possible under present methods. But our inability at the present time to approach law in this way is not due in any degree to the use of the cases. The truth is that Anglo-American law is not yet an exact science nor a complete system. In some respects it is less so than when Blackstone and Kent wrote the only great systematic treatises of the English common law. Granted that many principles of law relating to contracts and property, for example, are now well settled, the fact remains that our body of law as an entirety is passing through perhaps its period of greatest change and transition. Certainly this is true in respect to many topics. This being the condition of the law, it is obviously impossible to make a scientific and systematic statement of it, based upon its supposed elements. No such pretended statement could be true or accurate. Hence the impossibility of teaching law as if it had been reduced to anything which might properly be called the corpus juris. In the accepted sense of that term, we have no corpus juris, despite the ambitious and unwarranted use of that term made for commercial purposes in some quarters. A great deal of scholarly work has now been done which may prepare the way for a corpus juris in a not too distant future, but at present it is nonexistent.

ADMISSION TO THE BAR.

This report has been confined primarily to a discussion of legal education, but some mention of conditions with reference to admission to the bar may be appropriate. As was indicated in the earlier part of the chapter, great advances have been made in this respect. An examination of the reports of the committee on legal education of the American Bar Association, many of which have been admirable, will show how great has been the progress in this respect. Twenty-five years ago examinations for admission to the bar were in most States either unknown or more a subject of jest than of serious attention. To-day more than three-fourths of the States have what may reasonably be considered acceptable laws relating to admission to the bar—laws that are administered either by the courts directly or by boards of examiners appointed by them or provided for in the statute. The examinations are not always scientifically conducted, but in most of the States they are honest and genuine tests, to pass

which requires at least a reasonable degree of proficiency. Most of the States now require, as preliminary to the taking of bar examinations, a high-school education and the completion of three years of law study. The State of Michigan has made a distinct advance in requiring that those applicants for the bar who are not graduates of a respectable law school shall have studied law at least four years instead of the three required of law-school graduates. This puts an effective and very salutary check in that State upon the practice of going to the bar by unregulated office or private study or by means of instruction in correspondence law schools.

The matter of requiring an apprenticeship of one year or more in a law office before the graduate in law shall be eligible to admission to the bar has been debated in the American Bar Association and in several of the State bar associations, particularly in New York. Theoretically this move is in the right direction. In Germany, France, and some other countries a long apprenticeship of this sort is required, and the effects are beneficial. It may be doubted, however, whether the results would be as satisfactory in this country, where law offices are on a more commercial basis, and are not standardized, so that they are not in as strong position to be helpful to students as in other countries. In this and in many other matters relating to legal education and admission to the bar, the activities of the American Bar Association have been most helpful.

THE ASSOCIATION OF AMERICAN LAW SCHOOLS.

One of the greatest single factors in the progress made during the last few years is the Association of American Law Schools. This association was organized in 1900, for the "improvement of legal education in America, especially in the law schools." The association is composed of law schools which require the completion of a four-year high-school course for admission, which offer a course of three years of at least 30 weeks each, and which have law libraries of not less than 5,000 volumes. Forty-five schools are now members of this association.

The establishment and maintenance of the eligibility requirements as thus indicated have been a great stimulus to advance in these respects in many law schools. At the annual meetings, papers on subjects relating to legal education are read and there is general discussion of the papers. These papers and discussions have been instructive and stimulating to the law teachers of the entire country. Many questions have been thrashed out thoroughly and an approach to a reasonable standardization in law-school methods has resulted. The work of the association during the first 15 years of its life has been confined largely to the matters above referred to. There has

been a disposition to criticize the association for not having been more vigorous in its policies and action. It may well be doubted, however, whether a voluntary organization of this kind could have undertaken effectively more than the association has accomplished. During the greater part of that period it has been the wise course to encourage and stimulate rather than to criticize and attack schools which were at least endeavoring to live up to the requirements of the association. Notable advancement has been made in most of our law schools since the organization of this association, however, and perhaps the time has now come when those schools which are not fully and fairly living up to the reasonable requisites for membership should be regarded and treated as standing squarely in the pathway of progress and reform in legal education.

THE CARNEGIE FOUNDATION INQUIRY.

This paper should scarcely close without a reference to the investigation of legal education and admission to the bar now being conducted by the Carnegie foundation. The foundation has now been prosecuting this study for nearly two years, and is making a most thorough examination into the claims and the actual practice of all of the law schools of the country. This investigation covers every aspect of law-school work, including the important matter of method of instruction. The foundation is also making an exhaustive study of the laws, rules, and practice of every State relating to admission to the bar. The result should be a mass of information, analyzed and systematized, of the utmost value, since the work is in thoroughly competent hands and is apparently being conducted with impartiality, thoroughness, and intelligence.[1]

[1] *See* Carnegie Foundation for the Advancement of Teaching. The common law and the case method in American university law schools. Report by Dr. Josef Redlich. New York City, 1914. XI, 84 p. (Bulletin no. 8.)

CHAPTER XI.

PROGRESS IN VOCATIONAL EDUCATION

By WILLIAM T. BAWDEN,
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CONTENTS.—Report of the commission on national aid to vocational education—Training teachers for vocational education—Investigations and surveys—State systems of vocational education—Organizations interested in vocational education—New positions created—Achievements in typical centers.

The movement for vocational education in the United States at the present time is a complex of forces, representing diversity of motive, if not of objective, and operating in an arena too vast to be comprehended in a single glance. To undertake a summary of the year's progress for presentation within the limits of a few pages is a big task, and he who essays it must be careful not to claim too much in respect to breadth of vision. This chapter has been prepared after consultation with many of the recognized leaders in all parts of the country, and their assistance, by way of reports and suggestions, is here cordially acknowledged.

1. COMMISSION ON NATIONAL AID TO VOCATIONAL EDUCATION.

The important event of the year in vocational education was the appointment by President Wilson, pursuant to act of Congress approved January 20, 1914, of a commission of nine members "to consider the subject of national aid for vocational education and report their findings and recommendations not later than June 1." The following persons were appointed to serve as members of the commission:

Senator Hoke Smith, Georgia.
Senator Carroll S. Page, Vermont.
Representative D. M. Hughes, Georgia.
Representative S. D. Fess, Ohio.
John A. Lapp, director Indiana bureau of legislative information, Indianapolis, Ind.; secretary of Indiana commission on industrial and agricultural education, 1912.
Miss Florence M. Marshall, director Manhattan Trade School, New York City; member of Massachusetts factory inspection commission, 1910.
Miss Agnes Nestor, president International Glove Workers' Union, Chicago, Ill.; member of committee on industrial education, American Federation of Labor.
Charles A. Prosser, secretary National Society for the Promotion of Industrial Education, New York City.
Charles H. Winslow, special agent, Bureau of Labor Statistics, Washington, D. C.; member of Massachusetts commission on industrial education, 1906–1909.

The commission organized April 2, 1914, by electing Hon. Hoke Smith, Senator from Georgia, as chairman. Mr. Ernest A. Wreidt, director, Public Education Association, New York, N. Y., was appointed secretary April 17, 1914. An office and statistical staff of 45 persons assisted in the work.

On June 1, 1914, the commission made its report to Congress, after six weeks of strenuous activity that included a number of public hearings, conferences with representatives of all interested departments and bureaus of the Federal Government, examination of the results yielded by questionnaires, as well as independent study and research. The report was issued from the Government Printing Office in August as H. Doc. No. 1004, in two volumes: I. Report of the commission, with text of the proposed legislation; II. Hearings before the commission.

The bill for the proposed act prepared and recommended by the commission was introduced into the House by Representative Hughes, of Georgia; and into the Senate by Senator Hoke Smith, of Georgia. In each case the bill was referred to the committee on education.

RECOMMENDATIONS OF THE COMMISSION.

Interested persons are referred to the published report for the full text of the recommendations of the commission, and the proposed law. The following is a condensed summary:

I. SCOPE OF THE GRANTS.

1. That national grants be given to the States for the purpose of stimulating vocational education in agriculture and in the trades and industries.

2. That grants be given in two forms:

(*a*) For the training of teachers of agricultural, trade and industrial, and home economics subjects.

(*b*) For the paying of part of the salaries of teachers, supervisors, and directors of agricultural subjects and of teachers of trade and industrial subjects.

3. That appropriations be made to a Federal board for making studies and investigations which shall be of use in vocational schools.

II. AMOUNT OF THE GRANTS.

1. For the salaries of teachers, supervisors, and directors of agricultural subjects—that there be appropriated to the States the sum of $500,000 for the fiscal year 1915–16; this amount to be increased at the rate of $250,000 a year until a total of $2,000,000 is reached in the fiscal year 1921–22, and thereafter the annual increase to be at the rate of $500,000 a year until a total maximum appropriation of $3,000,000 is reached in 1923–24.

2. For the salaries of teachers of trade and industrial subjects—that there be appropriated to the States the sum of $500,000 for the fiscal year 1915–16; this annual amount being increased for each subsequent year in the same manner as the grants for the teachers of agricultural subjects, until the same maximum of $3,000,000 is reached in 1923–24.

3. For the training of teachers of agricultural, trade and industrial, and home economics subjects—that there be appropriated to the States the sum of $500,000 for

the fiscal year 1915–16; $700,000 for the fiscal year 1916–17; $900,000 for the fiscal year 1917–18; $1,000,000 for the fiscal year 1918–19, and annually thereafter.

4. For the work of the Federal board for vocational education—that there be appropriated $200,000 annually, this money to be used in administering the grants to the States and in furnishing information and advice to the States for use in vocational schools and classes.

The maximum in each case above is continued annually thereafter.

III. KINDS OF SCHOOLS AIDED BY GRANTS.

1. That the schools aided in part by the National Government should be schools supported and controlled by the public.

2. That the education given in these schools should be of less than college grade.

3. That they should be designed to prepare boys and girls over 14 years of age for useful or profitable employment in agriculture and in the trades and industries.

4. That the schools should be of three types, in order to meet a variety of needs:

(*a*) All-day schools in which practically half of the time should be given to actual practice for a vocation on a useful or productive basis.

(*b*) Part-time schools for young workers over 14 years of age, which should either extend their vocational knowledge or give preparation for entrance to a vocation, or extend the general civic or vocational intelligence of the pupils.

(*c*) Evening schools to extend the vocational knowledge for mature workers over 16 years of age.

IV. ADMINISTRATION.

1. That the States, in order to receive national grants for vocational education; designate or create State boards, through whom the National Government would deal, the determination of such boards to be left entirely to the States.

2. That a Federal board be created, consisting of the Postmaster General, the Secretary of the Interior, the Secretary of Agriculture, the Secretary of Commerce, and the Secretary of Labor, with the Commissioner of Education as its executive officer, to administer the funds and to cooperate with the States in promoting vocational education.

V. CONDITIONS.

1. That the Federal statute providing for national grants to the States for vocational education set up conditions safeguarding the proper expenditure of the money for the purposes designed and insuring a maximum degree of efficiency in the work.

2. That the States, through their legislative authorities, formally accept the conditions of the Federal statute providing national grants.

3. That the States provide for the proper custody and disbursement of the Federal grants allotted to them.

4. That the State board, with the approval of the Federal board for vocational education, formulate plans for the administration of the grants in conformity with the provisions of the Federal statute, and establish minimum requirements for the State as to the qualifications of teachers and the equipment of schools.

5. That for each dollar paid from Federal grants allotted to any State for the salaries of vocational teachers, or for the training of vocational teachers, the State or local community, or both, shall expend an equal amount for the same purpose, and shall in addition meet all other costs of plant, equipment, and maintenance, including the salaries of all teachers necessary to complete well-rounded courses of instruction.

6. That the State receive its allotment annually so long as it uses the funds allotted to it in conformity with the purposes and provisions of the Federal statute. Payment on allotments shall be made quarterly.

2. TRAINING TEACHERS FOR VOCATIONAL EDUCATION.

In no way can the progress of vocational education be better understood than by a study of the measures adopted to insure a supply of properly qualified teachers. The efficiency with which this work is done will have as great a determining influence upon further progress in the immediate future as any other one thing.

The inadequacy of the supply of teachers, which was pointed out in the last report,[1] still exists, and constitutes one of the most serious obstacles in the way of development. The two chief elements in the equipment of the special vocational teacher are: (1) Mastery of the technic of the occupation, and (2) teaching ability. The difficulty of securing these two elements in combination in the same individual is inherent in the situation.

It seems to be generally agreed that the only practicable way to obtain the necessary knowledge of the vocation is to serve for a time as an actual wage earner in it. For most vocations, having sufficient content to justify the provision of opportunities for training for them, this means entrance on the part of the individual at a fairly early age, the serving of a period of learning or apprenticeship, followed by a period as finished worker or journeyman long enough to achieve actual success in the vocation. This program necessarily brings the individual to a minimum stage of maturity and involves the relinquishment of opportunities for development or training in other directions.

The second of the essential elements, teaching ability, can be acquired efficiently in only two ways: By years of actual teaching experience under competent and sympathetic supervision, or by specific training. In either case the difficulties in the way of satisfactory adjustment and ultimate success in the work probably increase as the square of the age of the candidate at the time of beginning.

It is useless, therefore, to talk about the equipment of the ideal teacher for vocational schools as something likely to be available in the near future. It is necessary, while laying plans that will eventuate in ideals in due time, to make some adjustment that will meet present conditions as they are. Hence the large number of significant experiments now under way in different parts of the country. The most promising plan, so far as present tendencies give indication, is the attempt to provide the necessary training in principles and methods of teaching for men and women actually engaged as wage earners in the occupations they propose to teach. By providing this instruction in evening classes, and by providing later opportunities for the initial experience in teaching in evening schools, it is possible

[1] See Educ. Rep., 1913, vol. 1, p. 261.

to try out individual candidates and to obtain a fairly accurate determination of their fitness for teaching before they abandon the wage-earning status in the occupation itself.

Not all of the experiments can be described here, but a number of the most prominent ones are mentioned. It is to be hoped that many other institutions which have the facilities for making some contribution to this great problem of teacher training will be stimulated to earnest effort.

PRATT INSTITUTE, BROOKLYN, N. Y.

The class consisted of 17 men who were working at various trades during the day and were brought together in an evening class to receive instruction in the principles of teaching as applied to the industrial school. The class met three times a week for a period of 24 weeks, each session being two hours in length.

The purpose of the course was to train men to become teachers of shopwork in either day or evening industrial schools. The instruction did not include shopwork practice or related trade subjects, but was confined to the principles of trade teaching. It was expected that the candidate would bring to the class the thorough trade knowledge and training in related trade subjects essential to the successful shop teacher. No applicant was accepted who was under 24 years of age or over 40, or who could not show an all-round experience in his trade covering at least 5 years above apprenticeship. No written test for entrance was given, but candidates were required to fill out an application blank giving in detail their training and experience, and to submit recommendations as to trade fitness. The personal qualifications of each candidate were carefully rated in an interview with the instructor of the class, and his trade equipment was passed upon by a mechanic experienced in the same trade.

Applications were made by 60 men, and of this number 20 were accepted, of whom 18 actually started the course. One withdrew at the end of six weeks, 17 remaining to complete the work. Those selected represented the following trades: Machinist, carpenter, machine draftsman, electrician, pattern maker, plumber.

The training given consisted of two parts: (1) Practice teaching in the New York evening trade schools, one evening each week. (The majority of the class taught two evenings a week, the second evening being optional.) (2) Class work at Pratt Institute, two evenings each week.

In the practice teaching, the pupil teacher served as a helper to the regular trade teacher in charge of the shop. In some instances the pupil teacher was given a division of the class for which he was made responsible under the direction of the shop teacher. One evening each week the instructor of the training class visited the various classes in which the pupil teachers were serving, for the purpose of giving assistance and direction to the practice work. Members of the class were required to submit weekly written reports on their practice teaching. These reports were later made the subject of class discussions.

The class work at Pratt Institute consisted of two parts: (1) Demonstration work in the form of practice teaching before the class, and (2) conference and lecture work on a "short-unit" basis.

In the demonstration work, members of the class were required to bring in problems in shop practice and related shop knowledge which had arisen in their practical experience, and present these to the class in the form of lessons. The demonstration was then thrown open to discussion.

The conference and lecture work consisted of discussions, readings, and occasional lectures upon such subjects as the following:

1. The organization and equipment of the trade-school shop.
2. Analyzing a trade for the purposes of instruction
3. The commercial product.
4. The project scheme.
5. The teaching of "related work."
6. Basis of the course of study.
7. The organization of the industrial school.
8. How to handle the industrial school boy.
9. The qualifications of the industrial school-teacher.
10. Types of school—their organization and function.
11. What is education?
12. The difference between vocational education and general education.
13. The difference between vocational education, on the one hand, and prevocational education, practical arts, and manual training, on the other.

The method of instruction in the classroom in general was to select a given topic or unit, approach it through a series of questions based on the practical experience of the members of the class, follow these questions with lecture work and assigned readings, conclude the instruction with questions for discussion drawn out of the material thus given. The aim of this method of instruction was to establish a connection between the prospective teacher's shop experience and the new knowledge to be acquired on the one hand, and to arouse his self-activity through discussion on the other. With these men the method seemed to work well.

It is expected that this course will be continued next year on essentially the same plan. It is hoped that the following features may be worked out: (1) A more careful selection of the membership of the class with reference to trade experience. While the men chosen last year were in every sense selected men, a more rigid selection can be made. A greater variety of trades should also be represented in the class membership. (2) A reorganization of the subject matter presented for the purpose of (*a*) giving a simpler unit, (*b*) making clear the aim and method of the teaching process as contrasted with the shop processes, and (*c*) showing the relationship of the various units to the teaching process.

STATE COLLEGE FOR TEACHERS, ALBANY, N. Y.

The special class for mechanics, in 1913–14, had a membership of 18, as follows: Machinists, 8; patternmakers, 2; plumber, 1; general woodworkers, 7. This class has completed a course of two winters, 25 weeks each, 3 nights per week. Two nights each week were devoted to regular classroom and shopwork, including methods of teaching, shop practice and management, drawing, shop mathematics. The third night was devoted to practice teaching, which was provided for by three apprenticeship classes, supported by the city, under the direction of the college. The practice teaching was supervised by members of the regular college faculty. This class is under the general direction of Prof. Harry B. Smith.

TEACHERS COLLEGE, NEW YORK CITY.

A class was conducted in 1913–14 at Teachers College, Columbia University, New York, N. Y., on Friday evenings, 7.30 to 9.30, for 25 sessions. The director of industrial arts education had administrative charge of the class, and devoted 10 periods of the 25 to a study of the principles of teaching, observation, and discussion of observation lessons given in a woodworking shop, discussion of the problems of vocational education, and special study of the industrial education problems of the fields represented by the members of the class. This part of the course was followed by Profs. Noyes, Sleffel, and Weick, who took up intensively the problems of teaching wood-

work, metal work, and industrial drawing, respectively. Membership in the class was not restricted to tradesmen, but included a few teachers of industrial arts from local schools.

In 1914–15 it is planned to restrict the attendance to men of journeyman standing, between the ages of 24 and 45, who give promise of success as teachers. The class will be limited to 20. There will be two sessions weekly for 25 weeks, Tuesdays and Thursdays from 7.30 to 9.30, a total of 100 hours. In addition to instruction, class lectures, and discussion, opportunities for practice teaching in evening vocational schools will be provided through the cooperation of the board of education. Mr. Joseph H. Constantine is in charge of the practice teaching and of administrative details, with assistance of department representatives as in 1913–14.

UNIVERSITY OF WISCONSIN.

The University of Wisconsin, Madison, Wis., has been actively engaged in the work of training teachers for vocational schools since September, 1910, at which date Prof. Fred D. Crawshaw was elected director of the department of manual arts. During the four years three plans have been developed to prepare mechanics for teaching:

1. Class for adult special students.—Journeymen mechanics having the necessary qualifications are encouraged to register in the university as "Adult specials." Two annual scholarships, of the value of $400 each, are provided for this purpose. Special courses are offered for men of this type.

2. Mechanics institute.—The board of regents appointed 15 industrial scholars to spend one month at the university, March 9 to April 9, 1914. These 15 men were selected from a list of applicants recommended by prominent local residents, and represented 11 cities in different parts of Wisconsin and 12 different trades. The purpose of the institute was to give intensive practice in special lines of shopwork and drawing, and some consideration of the problems of teaching, organization, and administration. Provision was made for observation of model lessons, and for discussion and criticism.

No one responsible for the organization of the institute believes that one month is a satisfactory length of time in which to train men professionally for teaching. It is believed, however, that two ends may be accomplished in this time: First, the members of the institute will gain some power to organize material in their own field of endeavor, and will receive some specific instruction and practice in teaching classes; and second, they will acquire some appreciation of the teaching problem for particular types of school, and should, consequently, be able either to decide to seek further preparation or to abandon the idea of teaching.

3. Continuation school for trades teachers.—In 1911 the extension division of the university organized a three-year night-school course for the training of teachers for industrial schools, under the general direction of the department of manual arts. The program of work includes the following subjects: (1) Shop practice, 5 hours per week (3 years, 36 weeks per year) in one or more trades, in the Milwaukee Trades School or in the factories; (2) English, with special reference to the needs of industrial teachers, 2 years, 72 lessons; (3) mathematics, as used in shop and drafting room, with emphasis upon teaching the subject in industrial schools, 3 years, 108 lessons; (4) mechanical drawing, 3 years, 216 hours; (5) methods of teaching, 1 year, 36 lessons; (6) industrial education, 1 year, 36 lessons; (7) civics, 1 year, 36 lessons; (8) sanitation and safety devices, 1 year, 36 lessons; (9) class teaching, criticisms, and discussion, 1 year, 36 lessons; (10) elective study, 1 year, 36 lessons.

This course is to be put upon a better working basis by the appointment of a resident director to give his entire time to its further development. Beginning with 1914–15 the course will be under the direction of Mr. Wilson H. Henderson, assistant professor of manual arts.

CARNEGIE INSTITUTE OF TECHNOLOGY, PITTSBURGH, PA.

Since 1911 the school of applied industries of the Carnegie Institute of Technology has been offering a course for the training of teachers in the field of industrial education. It is adapted primarily for high-school graduates, especially from the manual

training and industrial high schools. It covers a four-year course of study leading to the degree of bachelor of science in industrial education. The school awarded its first degrees in this department in June, 1914, to graduates who entered with advanced standing.

In addition to the regular course of four years for high-school graduates, a two-year teachers' short course, and a special night and Saturday morning course, are offered. The work is thus arranged to supplement the academic training of graduates of normal schools or colleges by giving practical instruction as a helpful background for principle and theory. To the man of more mature years who has acquired some skill in his trade and wishes to prepare himself for teaching, a thorough working knowledge of the "mechanics of teaching" is given. For men who are already in the teaching profession, but feel the need of a better theoretical or practical basis for their chosen work, the night and Saturday morning course meets the need. A number of graduates of the short course and of the special course are making good as teachers in various parts of the country.

Methods of instruction.—The department of industrial teachers' training of the Carnegie Institute of Technology aims to train its teachers to fill positions in apprentice shops, in manual training schools—both grammar and high schools—in prevocational schools, and in trade schools. In the instruction offered the emphasis is put upon shopwork as the important groundwork of the course. The list of school shops and laboratories includes machine, pattern, foundry, forge, plumbing, bricklaying, electrical, carpentry, sheet metal, manual arts, printing, mechanical and structural drawing rooms, and laboratories for chemistry and physics.

Closely interrelated with the shop practice is the work of the department of practical sciences, which includes the technical subjects utilizing the application of mathematics, physics, and chemistry, and the instruction given under the heading of general studies, including English composition and literature; history—political, social, and industrial; industrial geography; civics and economics. The whole is complemented by a careful study of the principles of educational psychology and pedagogy, upon which the science of teaching is based. The latter makes provision for a general knowledge of psychology—the psychology of the child and adolescent, educational psychology, social psychology, social education, industrial education, school supervision and administration, school hygiene and sanitation, history of modern education, classroom management, practical teaching, and teaching observation. In addition to the equipment, the school is so situated that it can cooperate with other agencies to give the student adequate experience through actual participation, as a teacher, in the work.

Trade cooperation.—A close relationship exists between the various manufacturers of the city of Pittsburgh and the school of applied industries, which, of course, has its effect upon the teachers' training work. Ideas are interchanged and the cooperation goes to the extent of appointing committees to advise in the working out of the curriculum. A notable recent example, on a larger scale than ever before in connection with any industry, is the national recognition that has come from one of the largest bodies of manufacturers in the United States. An agreement has been made whereby the United Typothetæ and Franklin Clubs of America, and their committee on apprentices, recognize the printing department of the school as the official technical school for the typothetæ. This will mean much from the cooperative standpoint.

Candidates for admission to the regular teachers' course must be able to qualify under two tests: (1) Personal interview with the dean and the head of the department; (2) presentation of a certificate of graduation from a satisfactory four-years course of study in an approved high or preparatory school, or its equivalent in practical training or experience. Applicants seeking admission to short courses, not leading to a degree, must be men of maturity and must give evidence of experience in practical work requiring manual skill by presenting satisfactory statements from

present and past employers, certifying as to character, ability, nature of work, and length of service. They must also present themselves for a personal interview with the dean and the head of the department.

For the present it is the aim of the department to limit the number of candidates in the entering class to 24 students pursuing the regular four-years course.

The work of the industrial teachers' course is in direct charge of the head of the department, Dr. Walter Libby, who cooperates with the dean of the School of Applied Industries and the other heads of departments with which the training of teachers is necessarily interrelated.

Training women teachers.—Provision is also made for the training of women as teachers of vocational subjects. This course is similar in many respects to the industrial teachers' course for men. It is offered in the Margaret Morrison Carnegie School of the Carnegie Institute of Technology. The courses as outlined include: (1) Household economics (domestic science); (2) secretarial (commercial); (3) costume economics (domestic art); (4) home arts and crafts (handicrafts); (5) general science.

BRADLEY POLYTECHNIC INSTITUTE.

Bradley Polytechnic Institute, Peoria, Ill., has begun to train teachers for schools that are strictly vocational in character. It has come to the vocational field through an effort to meet the changing demands for efficient teachers of the manual arts for grammar, prevocational, and high schools. These demands have led over into the realm of the vocational school. The institute still holds to its academic standard of high-school graduation, or equivalent, plus two years of special training in the manual arts, pedagogy, and English, before any diploma is given; and two additional years of general college work in science, mathematics, language, and history, before the bachelor's degree is given. However, young mechanics with little or no high-school preparation, but with alert minds and some evening or correspondence school work, are admitted to regular classes and given full credit for their work, not being allowed to graduate till all high-school requirements have been met in some satisfactory way.

Changing demands.—The demand upon this school for teachers of the manual arts during the past two years has been stronger than ever before, and a noticeable fact about that demand is that a much greater variety of teachers and supervisors is wanted. Besides the usual teachers of woodworking, pattern making, forging, machine shop, etc., there are requests for practical electricians, printers, men to teach the running and care of gasoline engines and automobiles, teachers of continuation school subjects, directors of continuation and vocational schools, men to teach the drawing of plans for farm buildings, teachers of agriculture and woodworking or blacksmithing, or both, suited to farm communities. From these requests it is clear that the demand for men of practical experience is growing stronger; but there is little or no willingness to take teachers with lower academic standard. Bradley Institute is attempting to meet these new demands in two ways: (1) By attracting to its courses men with trade experience; (2) by running a factory within the school, which gives practical experience in a few of the kinds of work in greatest demand.

The following record of the 80 students who have been pursuing the courses for teachers during the two years 1912–13 and 1913–14 (not including summer-school students) indicates the sources of men students in the courses for teachers:

12 with full trade preparation,
16 with partial trade preparation,
6 directly from teaching,
10 from technical high schools,
2 from art schools,
34 from other high schools and normal schools.

80

The equipment includes seven shops, two of which are run on a factory basis, organized with a modern cost system, with expert mechanics as instructors, and turning out a valuable product. The records show that during the year 1912–13, September to September, the products manufactured were valued at $2,172.13. A large part of this was machinery and equipment for the use of the institute, outside sales amounting to only $270.35. The year 1913–14 will probably show an increase on these amounts. Only by having a product of considerable volume passing through the shop can the methods of doing work used in a commercial shop be carried on in a school shop, and only by having some means of disposing of this product at a fair price can any school afford to maintain such a factory shop. The contention is that this kind of shop has all of the essential educative elements of a commercial shop and none of its abuses. Skill, as well as a knowledge of principles and processes, is gained in a shorter time.

Prof. Charles A. Bennett, as director of the department of manual arts, has administrative charge of the courses for the training of teachers.

PEABODY COLLEGE FOR TEACHERS, NASHVILLE, TENN.

The George Peabody College for Teachers is just now in the process of organization, having opened its doors for the first time with the summer session of 1914. Numerous inquiries have been received for teachers who are thoroughly trained in some vocation and who are prepared to teach it. The demand thus far has been chiefly for teachers of the building trades, machine trades, printing, and drafting.

The present plans include provision for the training of teachers in carpentry, machine woodworking, machine shop, printing, and drafting. Students in the special teacher-training classes will be expected to spend at least one-third of their time while in the college in technical training in the subject of specialization, and to spend approximately three months of the year in actual work in the industry. It is expected that positions for students will be found which will enable them to fulfill the requirement with respect to the time employed in the industry. Prof. Robert W. Selvidge is in administrative charge of the department.

UNIVERSITY OF CHICAGO.

The department of education of the University of Chicago is interested in the work of preparing teachers for all phases of education, but so far as industrial education is concerned, it is placing emphasis on the administrative side; that is, the effort is made to develop in superintendents, principals, and teachers an intelligent interest in the whole field of vocational education, as well as accurate information regarding sound principles and practices in the several types of schools in various parts of the country. This work does not necessarily involve technical training.

Methods.—Each student is encouraged to take such courses as the university affords that will give him the training of which he is in the most immediate need. The demand for teachers and directors is so strong, however, that most teachers go into the work only partially prepared. These are encouraged to return year by year for additional training and inspiration, and many respond. During the summer quarter, the period of heaviest attendance of this group, a special industrial class is conducted for observation and demonstration purposes. The class is made up of sixth and seventh grade boys, 14 years of age or over. The class is in the hands of four or five different specialists, and individual students are given opportunities to assist in the instruction and management in various ways.

The courses are under the general direction of Prof. Frank M. Leavitt.

OHIO STATE NORMAL COLLEGE, OXFORD, OHIO.

The Ohio State Normal College, Miami University, Oxford, Ohio, has been training manual arts teachers for the past six years, and many of the graduates of the manual

arts department have been drawn into the work of organizing and teaching industrial classes. But the department does not claim to be training teachers for vocational education. It is believed that until such time as adequate facilities can be provided for training teachers specifically for industrial education, the men and women who have been trained for the work in manual arts must be depended upon to supply the demand.

Methods.—The aim has been to prepare teachers for manual-arts work in the smaller school systems. Special emphasis is placed on woodworking, the correlated design, and mechanical drawing. There are also courses in metal work and pottery.

Each course is treated under four heads: (1) Design, (2) working drawing, (3) construction, and usually (4) related shop mathematics. The courses are under the general direction of Prof. Fred C. Whitcomb.

UNIVERSITY OF MISSOURI.

The University of Missouri, at Columbia, Mo., has prepared plans for dealing with the problem of training teachers for vocational schools, which are held in abeyance for the present for administrative reasons. The department of manual arts, in the school of education, under the direction of Prof. Ira S. Griffith, will be equipped in due time to handle this work.

3. INVESTIGATIONS AND SURVEYS.

In the corresponding chapter in the Report of the Commissioner of Education for 1913, one section was devoted to discussion of special investigations that had been completed, or were under way or projected, in a number of cities. This method of community study for the purpose of securing definite knowledge of conditions upon which to base an industrial education program was characterized as the most significant phase of the vocational education movement during the year 1912–13. The work of investigation continues with unabated vigor, and 1913-14 has been signalized by several important contributions. Space is here given to brief reports from only a few of the cities in which surveys are yielding practical and definite results.

NEW YORK, N. Y.

The department of education is now conducting three industrial surveys with a view to the establishment of continuation instruction in cooperation with business establishments. These include a survey of Staten Island, where there are many extensive industrial establishments, a survey of Astoria, and one in the city at large with special reference to the extension of technical high-school activities.

The chamber of commerce and the merchants' association have both entered into a scheme of cooperation with the board of education. The former body has undertaken to supply on schedule a number of leaders in the commercial world who will lecture to students in the commercial schools and classes. It has also given favorable consideration to a plan for distributing such students in great offices, as a means of education for undergraduates. The merchants' association has agreed to find a room in which office workers in the Woolworth Building may receive extra instruction.

During the month of May a commission, made up of the mayor and other city officers, the president and some members of the board of education, as well as officers of the board, together with representatives of the business, journalistic, and educational world, and other public men, made a tour of inspection to observe methods of vocational education in Cincinnati, Chicago, and Gary, Ind.

Following this visit a public meeting of 1,600 people interested in vocational education was held, at which addresses were made by the president of the board of education, the mayor, and comptroller of the city, Dr. Gustav Straubenmüller, of the board of education, Mr. H. E. Miles, of Milwaukee, and Supt. William Wirt, of Gary, Ind. A special study of industrial education has since been undertaken.

NEW ORLEANS, LA.

The survey referred to in this chapter, in the 1913 report, has been prosecuted vigorously during the year, under the leadership of Dr. David Spence Hill, director of the division of educational research of the public school department. During the year studies have been made of special schools in various parts of the country, with a view to determining what features give most promise of success in local conditions.

Bulletins.—The division of educational research has in preparation a series of bulletins setting forth the results of the year's investigations. The first of these, entitled "Facts about the Public Schools of New Orleans in Relation to Vocation," was published in June, 1914. This report contains preliminary information concerning a number of administrative problems in the elementary schools, such as progress of pupils, elimination, and a number of statistical analyses, and also studies of the industrial distribution of fathers, teachers' impressions of boys' aptitudes for trade work, boys and men in night schools, former jobs and present ambitions, and present occupational distribution of boys in night schools.

The second bulletin will summarize the information which has been gathered concerning the industries of New Orleans. Over 90 factories and other places of employment have been visited, and additional plants were investigated by means of correspondence. The third bulletin will present a report on the buildings, equipment, and organization of nine typical schools in other cities, which were visited and studied during the year.

From the data collected in these three reports it is proposed to deduce plans for curricula, teaching staff, administration, site, buildings, and equipment for a school that shall in some measure be adapted to conditions in New Orleans.

CHICAGO, ILL.

In Chicago the superintendent of public schools "concluded that great benefit would be derived in a system if the teachers, those who are directly associated with the children and youth, could first make such a study, if only of one line of instruction or effort." Without waiting for suggestion or pressure from the outside, therefore, a plan for a comprehensive study of the schools was perfected.

A committee consisting of 320 members, one representative from each school in the system, was organized in the form of 25 subcommittees. Each subcommittee was assigned to a particular phase of work; as, the school plant, administration, child study, and others. Each school in the system was visited by at least one subcommittee. Each subcommittee presented a written report, and these were published in full in the annual report of the superintendent to the board of education for the year ending June 30, 1914. The point of view is suggested, partially at least, by the following paragraph quoted from a circular letter addressed to teachers and principals by the superintendent:

> Should there come later a survey conducted by inspectors from the outside, we shall have our own survey with which to judge their results. We also shall have gone through the first palpitations and excitement caused by a cooperative investigation.

The reports of a number of the subcommittees are of special interest to the reader of this chapter, but it is possible to refer to only four, as follows:

Industrial and prevocational education.—The committee criticizes as misleading and ill-advised the use of the terms "industrial," "vocational," and "prevocational" in

connection with the courses now offered under these designations. It is believed that the fundamental purpose in elementary education is the "development in the child of those attitudes and reactions essential to social well-being in a democratic society," and, further, that the vocational purposes of the different forms of handwork in the elementary school are only secondary.

In connection with the industrial schools the committee strongly recommends the introduction of a greater variety of handwork, with the employment of two teachers of handwork in each school, the revision of the present course of study, and the modification of the present plan of building in order to provide adequate accommodation for the handwork.

The committee also recommends that vocational schools be organized to take the place of the present scheme of prevocational classes in the high schools, and to provide vocational courses of various types for boys and girls 14 years of age or over, in the seventh and eighth grades. It is proposed that these schools be equipped as technical industrial or trade schools.

The recommendations of the committee include definite suggestions as to organization of schools and classes, courses of study, equipment, and teaching staff.

Vocational work in high schools.—The report discusses the work done under the following divisions: Woodworking, metalworking, electrical work, sewing, kitchens and laundries, printing, apprentice classes. Among the good features pointed out are: The splendid opportunities for individual expression in the planning and working out of problems that are worth while; valuable training in work on group problems; opportunity for following the individual bent, and developing special abilities.

The suggestions for improvement include: A systematic arrangement for teachers' conferences; more cooperation between departments; use of commercial department to mimeograph lecture notes and demonstration outlines for students' notebooks; possibility of finding useful problems in the school, home, and elsewhere.

Vocational guidance.—The committee takes the position that vocational guidance must neither favor nor disfavor any class of occupations, but should surround the child with all possible information or opportunities to secure information, and then stimulate him to a wise decision for which he himself assumes the responsibility. The training provided must not be narrow; geography, civics, economics, and the other studies should teach the "history of industry, the social significance of commerce and the newer vocations connected with public utilities and social service. The early training must be broad, but not superficial; the later training intensive, but not narrowing."

The report contains specific suggestions of ways by which the work in vocational guidance may be extended and improved.

Plan for organization of a bureau of vocational guidance.—The committee which prepared this report recognizes three distinct functions in vocational guidance: (1) Study and training of the child in school; (2) study of the industries of the community; (3) a placement bureau.

The committee recommends the coordination of all the present more or less individual and disorganized activities under a capable director with assistants. An outline is given of the work to be undertaken by the director and of the duties of the vocational advisers.

BUFFALO, N. Y.

The committee on vocational guidance of the Buffalo Chamber of Commerce has been active in the development of plans for dealing with local problems. The committee has recognized the necessity for a thorough preliminary analysis of the situation, in order to determine the needs of children, parents, schools, and industries. This has been found to be a far larger and more difficult task than was at first realized, hence much time is still being devoted to this important feature of the work.

In order to secure first-hand information on what is being accomplished in other communities, Mr. Charles Rohlfs, a member of the committee, visited schools in Wisconsin, Illinois, Indiana, Ohio, and the District of Columbia. His report is under consideration by the committee in the effort to determine the direction of the next steps. The entire project is proceeding, purposely, upon a very conservative basis.

GRAND RAPIDS, MICH.

As the result of the survey referred to in this chapter last year, as well as other causes, commendable progress has been made. A school of printing is being developed, in which a number of apprentices are attending continuation classes. A number of day pupils are preparing to become printers.

The work in vocational guidance has attracted much attention from school men. This work begins in the seventh grade, and is carried on systematically from this point through the high school in connection with the work in English.

VOCATIONAL EDUCATION SURVEY, NEW YORK, N. Y.

In June, 1914, a report on the proposed vocational education survey was submitted to a committee of the board of education by the director, Mrs. Alice Barrows Fernandez. The primary purpose of the survey is to study the problem of the prevocational training of all 14 to 16 years old children in the schools. It is believed that this is at once the most pressing and the most difficult problem in the field of vocational education. "It is evident that to prepare children under 16 for subdivided processes of work or special parts of a trade is neither educational for the children, financially practicable for the schools, nor ultimately for the best interests of the workers or of industry."

The solution proposed by the survey is to perfect a plan for developing in children industrial intelligence and practical adaptability, for training workers who shall be continually and progressively efficient, by laying the foundations of the training in the fundamental principles that are common to many trades. For this purpose a careful analysis of the actual processes in a number of selected industries is projected, to determine what are the fundamental principles common to the various types of industrial work, together with their variations according to different products.

Plan of the survey.—The plan of the survey for the ensuing two years is to study and collect facts about the metal trades, which include 41 different industries. There are three main lines of attack upon the problem: (1) A statistical inquiry to ascertain the distribution of the 100,000 employees according to the several types of hand and machine work, and the characteristics of each class of work; (2) analysis of the machines and processes in order to determine the fundamental principles which are common to the machines and processes of varying types, with a view to determining how these principles can be taught to children under 16 years of age in such a way as to promote adaptability to such special lines of work as may be entered upon after leaving school; (3) an experiment in prevocational training in one of the public elementary schools, in order to test out the findings and conclusions of the survey as the work proceeds.

THE RICHMOND INDUSTRIAL SURVEY, RICHMOND, VA.

Beginning about the 1st of May, 1914, Richmond has been making a survey of its schools and industries for the purpose of formulating plans for industrial education. A representative of the Bureau of Education has served as a member of the commission in charge of the survey.

The school board has taken the initiative in making the investigation, supported by the Richmond Chamber of Commerce, the Business Men's Club, the Rotary Club, the trustees of the Virginia Mechanics Institute, the central trades and labor council,

the metal trades council, and other local organizations. From the outside, expert advice and assistance has been rendered by the National Society for the Promotion of Industrial Education, as noted elsewhere in this chapter.

The total number of persons employed in the work of the survey was about 25, with a maximum force engaged at any one time of 13. The work lasted from the first of May to about the middle of October.

THE ILLINOIS SCHOOL SURVEY.

One of the fields of investigation by the Illinois State school survey, whose general director is Dr. L. D. Coffman, of the University of Illinois, is that of vocational education. This division of the survey is being conducted by Dr. Charles Hughes Johnston, professor of secondary education, University of Illinois. The five divisions of this branch of the survey are concerned respectively with the following questions: First, the extent to which curriculums in small high schools are being differentiated on a vocational basis; second, the attitudes of several thousand typical parents of high-school children toward definite proposals to provide vocational education and a system of vocational guidance; third, a thoroughgoing analysis of the vocational intentions, earnings, influences on career choosing, and kindred problems of 8,000 high-school boys and girls (data secured by personal visits to Illinois schools); fourth, a tabulation of attitudes of business men who employ high-school graduates of commercial curriculums toward definite developments, extensions, and curriculum differentiations of high-school commercial education; and, fifth, a study of the requirements of vocational education and training in typical trades and crafts of Illinois.

The results of this division of the State school survey, when tabulated and interpreted, are to be put at the disposal of the legislative committee of the State teachers' association, together with a study of those features of recent State legislation for vocational education likely to be of local interest or application.

4. STATE SYSTEMS OF VOCATIONAL EDUCATION.

Six States now have in operation definite systems for organizing and supervising vocational schools and for assisting local communities in the maintenance of such schools through grants of State aid. Specific machinery for the administration of these systems has been established, in each case under the direction of a special deputy, or expert assistant, attached to the staff of the State superintendent or commissioner of education. These States are Massachusetts, New York, New Jersey, Pennsylvania, Wisconsin, and Indiana.

In addition to these States, Connecticut has established a plan for maintaining, or assisting in the maintenance, of industrial schools under certain conditions, the administration being carried on through the office of the secretary of the State board of education. California has begun the organization of a division of vocational education in the office of the State superintendent of public instruction, by the appointment of a commissioner of vocational education. No provision has been made for State aid for local schools.

A list of the members of the divisions of vocational education in the State departments of public instruction follows:

State officials in charge of vocational education.

State.	Division designation.	Staff.	Official position.	Appointed.
Massachusetts	Department of vocational education, State board of education, Boston.	Robert O. Small	Deputy commissioner for vocational education	Aug. 1,1913
		Charles R. Allen	Agent, industrial training for men and boys	Mar. 1,1911
		Rufus W. Stimson	Agent, agricultural education	Aug. 1,1911
		Mrs. E. W. White	Agent, industrial home making and practical arts training for women and girls.	July 1,1912
		Nellie M. Wilkins	Assistant, training for women and girls	Oct. 1,1913
		Chester L. Pepper	Special agent	Aug. 1,1914
New York	Division of vocational schools, University of State of New York, Albany.	Arthur D. Dean	Chief of division	
		Royal B. Farnum	Specialist in drawing and handwork	Nov. 29,1909
		L. S. Hawkins	Specialist in agricultural education	July 1,1912
		L. A. Wilson	Specialist in industrial education	Oct. 1,1912
			Specialist in vocational education for girls	Oct. 1,1914
			Inspector, agricultural schools	Do.
Connecticut	State board of education, Hartford	Charles D. Hine	Secretary State board of education	
Pennsylvania	Vocational division, State department of public instruction, Harrisburg.	Millard B. King	Expert assistant for industrial education	Dec. 6,1911
		Lindley H. Dennis	Expert assistant for agricultural education	Do.
Wisconsin	Department of industrial education, State department of public instruction, Madison.	Warren E. Hicks	Assistant for industrial education	June 1,1912
New Jersey	Division of industrial education, State department of public instruction, Trenton.	Lewis H. Carris	Assistant commissioner of education	Jan. 1,1913
		Edward A. Reuther	Expert in manual training	Sept. 1,1914
Indiana	Vocational division, State department of public instruction, Indianapolis.	William F. Book	Deputy State superintendent for vocational education.	June 1,1913
		Z. M. Smith	Special agent for agricultural education	Do.
California	Division of vocational education, State department of public instruction, Sacramento.	Edwin R. Snyder	Commissioner for vocational education	Sept. 1,1913
New Mexico	Division of industrial education, State department of education, Santa Fe.	Miss M. A. Myers	State director of industrial education	Sept. 1,1912
Maine	Vocational division, State department of public instruction, Augusta.	Benjamin H. Van Oot	do	Sept. 1,1914

The following summary, based on reports received from the offices of the State departments of public instruction, is a brief review of the progress that has been made during the past year in the administration of State aid for industrial education.

MASSACHUSETTS.

Legislation.—Chapter 391, Acts of 1914, authorizes the State board of education to provide and maintain classes for the training of teachers for State-aided vocational and continuation schools. Training classes will be supervised by an agent of the board of education, who will cooperate with local school authorities in establishing and conducting teacher-training classes in connection with evening industrial schools. The expense incurred in conducting these classes will be defrayed entirely by the State. An initial appropriation of $2,500 for this purpose is available for 1914–15.

Chapter 174, Acts of 1914, authorizes any city, town, or district composed of cities and towns, with the approval of the State board of education, to provide classes for the training of teachers for vocational schools. State supervision of such training classes is obligatory. A community maintaining approved classes is reimbursed by the State to the extent of one-half the cost of maintenance.

Other acts have been passed, relating to certificates for minors, financing and equipping industrial schools, the encouragement of agriculture among children and youth, and other purposes.

Types of school.—The types of State-aided vocational school organized under the Massachusetts law include: (1) Full-time day school; (2) full-time cooperative day school; (3) part-time school; (4) continuation school; (5) evening school. These schools offer the following courses: (1) Trade preparatory courses, for boys and girls; (2) trade extension courses, for men and women; (3) homemaking courses, for girls; (4) agricultural courses in separate schools and departments in high schools, for boys and girls.

Bulletins.—The following bulletins relating to vocational education have been issued:

No. 21. State-aided Vocational Education.
No. 25. State-Aided Vocational Agricultural Education in 1912.
No. 27. Educational Legislation of 1913.
No. 31. (1) Massachusetts State-Aided Vocational Education.
(2) Proposals for the Training of Teachers for Vocational Education.
No. 32. State-Aided Vocational Agricultural Education in 1913.
No. 34. Directory of State-Aided Vocational Schools.

New work.—The work of organizing the continuation schools under chapter 805 of the Acts of 1913, has been nearly completed. Continuation schools will be started in Boston in September, 1914. For description of the law see the last report.[1] The purpose of the part-time, or continuation, school is to extend in some measure, until the age of 16, the education of boys and girls who enter wage-earning callings at the completion of the period of compulsory schooling. The immediate aims of continuation schools are, first, to train their pupils for good citizenship and to advance their general culture, and, secondly, to promote vocational efficiency by courses related to the pupil's practical experience in a trade.

It is probable that continuation schools in most cases will be of the first class, namely, general improvement schools, which enable minors between 14 and 16 to prolong their general education and also to discover their special aptitudes. This broad training, including a knowledge of industries and the development of industrial sense, is to be followed by special instruction preparatory to entrance on a skilled calling.

[1] See Ch. XI. Progress in Vocational Education. Rep. of Commis. of Ed., 1913, vol. 1, p. 264.

During the year definite progress has been made in organizing short unit courses in trade instruction in evening classes. The so-called "unit" course is planned to meet the needs of workers already engaged in a trade. Instruction in a "unit" course gives the pupil, during the time at his command, the material he most requires, presented in a manner most likely to benefit the learner. A full account of such unit courses will be issued by the department of vocational education of the board of education at an early date.

Teachers' training.—Under authority of the legislation in chapters 391 and 174, Acts of 1914, the State will provide means for training teachers for vocational and continuation schools in cooperation with communities maintaining them. It will insure State supervision of this training, and enable the community maintaining approved classes to secure reimbursement to the extent of one-half the expenditures for maintenance. There is at present no agency engaged in this work, and there is no supply of teachers.

At the present time, plans are underway to establish evening classes and assistantships in the larger industrial schools of the State, notably those in Boston, Worcester, Springfield, Lowell, and New Bedford. Possibly good opportunities will be found also in other communities. In each of the centers named there are at the present time not only well-developed and efficient industrial schools, but many large industries exist from which suitably equipped apprentices may be expected to come. In the course of a few years it is hoped that graduates of these industrial schools, having had some practical experience, will return and undertake to qualify themselves as teachers.

For purposes of instruction, it is intended to utilize, where practicable, the buildings and equipment of existing industrial schools, and also the services, in part, of members of the teaching staff. The courses established will be designated not merely for persons seeking to become teachers, but also for persons now serving as teachers, who desire further instruction for their work.

For the present it is contemplated that the evening course proposed shall be carried on for the same length of time each year as regular evening school industrial courses, namely, two sessions every week for 20 weeks, each session being about two hours in length. It now seems probable, in view of the character of the demands for efficient service made upon teachers in vocational schools, that young persons after having taken the evening courses referred to above, will, in the majority of instances, first receive employment as shop assistants in industrial departments. For a period thereafter these teachers would still be serving, as it were, an apprenticeship in teaching, under such conditions that the director of the school and the head of the particular department will carefully supervise the work of the instructor and train him along needed lines.

Teachers' conferences.—At Hyannis, from June 29 to July 1, 1914, inclusive, there was held the regular summer institute for the benefit of teachers employed in the State-aided vocational schools. Important problems confronting the various schools were frankly discussed. The meetings were attended by 150 persons. This meeting, as anticipated, gave fully as much satisfaction as that of the previous year.

Since January 1, 1914, Mrs. Eva W. White, agent in charge of industrial homemaking and practical arts training for women and girls, has conducted weekly conferences with groups of teachers to discuss the various problems as they appear. These conferences have greatly aided the work of the instructors.

Cooperation with industry.—The Independent Industrial School at Beverly is operated as an all-day school, under a cooperative agreement with the United Shoe Machinery Co. Instruction is given in machine-shop work, and related drawing, mathematics, science, and English. Two divisions of boys alternate weekly between the schoolroom and the factory of the United Shoe Machinery Co. The hours are:

Factory—7 to 12, 1 to 5, except Saturday afternoon; school—8 to 12, 2 to 4, except Saturday. The school year is 50 weeks; legal holidays are observed; average length of course, 30 months.

The school opened August 2, 1909, under an independent board of trustees, representing the city school committee, the company, and the city. The school at present has 5 teachers and 60 boys in the part-time classes, while 7 boys are on full time in the factory, not yet released from the school. The boys in the factory are on commercial work and receive as wages one-half the piece price paid to regular mechanics. There are 35 graduates of the school.

The Industrial School at Quincy operates an all-day school, and offers instruction in the following departments: (1) Machine-shop work in the shops of the Fore River Shipbuilding Co. and the Boston Gear Works; (2) sheet metalwork, coppersmithing, joinery, mold loft work, and plumbing in the shops of the Fore River Shipbuilding Co.; (3) telephone construction and maintenance in the shops of the Couch Telephone Co. In addition to the shopwork given in these departments, related work is also given in shop drawing, shop mathematics, English, civics, geography, materials of trade, and industrial history.

The school is in session from 8.15 to 2.30 daily except Saturdays. The school year begins the middle of September and closes the first week in July. The vacations take place during Christmas week, one week in April, and all legal holidays. The length of the course is three years. The number of teachers giving instruction at present is 2, and the total number of pupils enrolled is 60.

The Quincy Industrial School also operates a part-time school, in which is offered instruction in the following departments: Machine construction and gear construction. The school is in session from 2.30 to 4.30 on Saturday afternoons. The school year begins the middle of September and closes the last week in June. The length of the course is three years. This school is supported by an annual appropriation made by the city council. It is housed in the same building with the Quincy full-time cooperative school. One teacher's time is devoted to the instruction, and the total number of pupils enrolled is 10.

The Boys' Trade School in Worcester operates an all-day cooperative school, and also a part-time school, offering instruction in the following departments: Machine-shop work in the shops of the Heald Machine Co. and the Morgan Construction Co.; power plant engineering, patternmaking, cabinetmaking, house carpentry, and printing. Related work is also given in mathematics, science, English, drawing, industrial history, bookkeeping, cost accounts, civics, commercial arithmetic, and commercial geography.

The school was established under an ordinance passed in January, 1909, and one passed in January, 1910. The school opened in October, 1910. The instruction is given in the building occupied by the Worcester full-time day school. The students in the cooperative school receive their instruction at the same time as those in the full-time day school, and eight teachers devote part of their time to the work.

The part-time school is in session from 8 to 12 on Saturday mornings. The school year begins the first week in September and closes the middle of August. The vacations take place during Christmas week, Fourth of July week, and the last two weeks in August. The length of the course is four years.

The school was established under an ordinance passed in January, 1909, and one passed in January, 1910. The school opened in October, 1910. The instruction is given in the building occupied by the full-time day school, and at the same time as those classes on Saturday mornings. The board of control is an independent board of trustees. The partial time of 8 teachers is given to the instruction of these students, and the number of pupils enrolled is 17.

NEW YORK.

New legislation.—The education law was amended by providing for the extension to rural communities of the facilities for high-school education, including agriculture. This amendment empowers and authorizes the commissioner of education to lay out in any territory, exclusive of city school districts, central schools to give instruction usually given in the common schools and in the high school. This is a form of consolidation in which the consolidated districts are authorized to maintain a central school district, and they are encouraged to establish within the central school courses in agriculture and homemaking.

Types of school.—Five types of school have been organized under the education law: (1) The general industrial school; (2) trade schools; (3) schools of agriculture, mechanic arts, and homemaking; (4) part-time or continuation schools; (5) evening vocational schools.

Bulletins: The following bulletins have been issued during the past year:

Bulletin 542. "Vocational Schools."
Bulletin 543. "Schools of Agriculture, Mechanic Arts, and Homemaking."
Bulletin 563, "Agriculture in the High School."
Bulletin 566, "Vocational Schools," reprint from the Annual Report of the Commissioner of Education.
Bulletin 569, "A List of Helpful Publications Concerning Vocational Instruction."
Syllabus in Drawing for Secondary Schools.

An experiment in continuation-school work.—An experimental continuation trade class was opened in Public School No. 4, New York City. The work covered a period of 10 weeks, and the class was composed of 16 white-goods workers, 4 young workers being selected from each of four prominent business establishments. The girls attended the class on alternate weeks in groups of 8. A written report stating absences and character of work was submitted to the employer on Friday afternoon. The wage for the week was based upon this report, deduction being made for absence as in the shop. The hours were from 8.30 a. m. to 5 p. m., with one-half hour intermission for luncheon.

From 8.30 to 12.30 the program was as follows: Trade arithmetic, spelling, English to foreigners, business-letter writing, trade geography, hygiene for the worker, special corrective gymnastics, civics based upon the need of an intelligent understanding of the relations of the members of a trade to one another and to the State, ethics, preparation of noon lunch, elementary study of food and its relation to health and efficiency. The program from 2 to 5 o'clock was as follows: Study of the mechanism of a foot-power machine, how to run it and how to keep it in order; elementary study of textiles (cotton goods); making of whole garment with emphasis upon the general setting of each girl's particular (shop) process to whole of the industry. The instructors were a regular teacher in the school, a special teacher of domestic science, and a graduate of Pratt Institute, who taught textiles.

Each worker made from 2 to 8 garments. The total output was 65 whole garments.[1]

Classes in salesmanship and classes in elementary education have been developed in various department stores in New York City and Buffalo.

State conferences.—Next to the problem of securing teachers who are prepared to undertake the work of vocational instruction is that of keeping those teachers who are already engaged in the work abreast of that which is being done by other teachers. With this in view, during the past year the specialists within the division have conducted, in different sections of the State, conferences which have been attended by the teachers, principals, and supervisors who were actively engaged in vocational instruction in State-aided schools, as well as those who were interested in cooking, sewing, drawing, handwork, and such other subjects as have been assigned to the work of this division.

[1] See also p. 449 of this report.

Cooperation with the industries.—In Rochester and Buffalo considerable progress has been made in effecting practical cooperation between the school authorities and representatives of industry. A formal agreement has been drawn up and entered into between the Rochester Typothetæ and the Rochester Shop School which provides for a term of apprenticeship in the printing trade of four years, three months of which are to consist of a preliminary or "try-out" course at the Rochester Shop School. After this preliminary period the apprentice alternates weekly between the shop school and his employer's printing plant, receiving a weekly wage of $4 for the remainder of the first six months, $4.50 for the second six months, $5 for the third six months, and $5.50 for the fourth six months. The employer pays wages for the school time as well as for shop time. The remainder of the apprenticeship period is to be devoted entirely to the employers' shop, the weekly wage being $9 for the first six months, $10 for the second six months, $11 for the third six months, and $12 for the fourth six months. During all of this time the apprentice is to be under the supervision of the shop school. Upon completion of the entire term of apprenticeship, having passed all the examinations, and being graduated from the shop school, the apprentice receives from the employer a bonus of $100.

In Buffalo the executive committee of the master printers' association, at their meeting June 27, 1912, adopted a resolution expressing hearty approval of the movement to establish a continuation school for the benefit of boys desiring to learn the printing trade, and pledging active support. All members of the association are recommended "to send their apprentices to such school for at least one-half day each week without deduction of pay for time spent during such instruction."

An apprenticeship agreement has been entered into by Typographical Union No. 9 with the printing department of Vocational School No. 11 in Buffalo, in accordance with which graduates of the two-year day vocational course in printing are to be credited by the union with one year on their term of apprenticeship. Graduates who remain at the school and complete the two-year advanced day vocational course are to be credited by the union with an additional year on their apprenticeship. The agreement also provides for granting one-half year on the term of apprenticeship for the successful pursuit of evening courses or continuation courses.

Special problems.—The great problem in this State is the establishment of all-day continuation schools. The following questions have arisen. The answers are yet to come.

1. Is it practical to develop a continuation school in a community of 2,000 people having one industry and employing a small number of children; say, for example, seven?
2. Is it wise for a State like New York, with 50 per cent of its school districts having a valuation of less than $60,000, to ask these small communities to develop continuation instruction when they can not properly support their present education?
3. Will the employers in all types of industry cooperate in the establishment of continuation school work?
4. Can the work done by young people in all industries be so arranged that they can be dismissed from the factory for a few hours a week without damage to the manufacturing process?
5. What kind of school training will meet the permanent requirements of industry and the permanent requirements of citizenship?
6. Is it possible to expect employers to pay the same wage as they now pay for five to eight hours' less work in the factory, due to attendance upon continuation school?
7. Can a complete program of part-time schooling be put immediately into operation and not greatly complicate the problem of public education, adding, as it will in any State of moderate size, from 50,000 to 150,000 children to the number already attending public schools?
8. Is it possible to develop a body of teachers competent to deal with continuation school instruction in such a way that pupils will learn through a study of real things and not through a line of abstract thinking?
9. Is part-time schooling practical in all industries which employ children under 16 years of age?

10. Is it wise for the State to train definitely children of 14 years of age for lines of work which it knows lacks permanency to youth and in all probability are not permanent needs in the industry?

11. Is it practical or wise to give supplementary instruction relating to the temporary occupations of childhood; that is, delivery-wagon boys, telegraph messengers, elevator boys, doll makers, etc.?

12. Should the State be a partner to an educational device for fitting children so perfectly to carry on their nonpermanent employment that they can never successfully get out of that employment?

Investigation.—The University of the State of New York and the New York State factory investigating commission are cooperating in the development of a report upon the economic value of vocational instruction.

NEW JERSEY.

Schools.—Examples of practically every type of school possible under the New Jersey vocational school law have been organized. These include:

(1) All-day industrial schools for boys over 14.

(2) All-day household arts schools for girls over 14.

(3) Part-time or continuation day schools for boys over 14, regularly employed as apprentices.

(4) Evening industrial classes for boys or girls over 16, employed as apprentices.

(5) Evening household arts classes for girls over 17.

(6) Short unit courses.

(7) Vocational agricultural classes.

During the past year Atlantic County has organized a county vocational school board for the purpose of administering courses in agricultural education under the direction of a specialist in agriculture.

Conferences.—A number of important conferences have been held, which have been attended by the principals and directors of vocational schools. During the coming year these conferences are to be extended and provision will also be made for the teachers in the schools.

Bulletin.—The department of public instruction has published a bulletin dealing with the work done in manual training in New Jersey.

New appointment.—The staff of the vocational education division has been increased by the appointment of Mr. Edward A. Reuther as expert in manual training, effective September 1, 1914.

PENNSYLVANIA.

Legislation.—While the school code of 1911 provided in a general way for vocational courses and schools, the vocational education law of 1913 makes a much more definite provision. It provides State aid for such vocational schools or departments as are approved by the State board of education.

State aid for these vocational courses and schools did not become available until near the end of July, 1913. It was then too late to notify school districts of the provisions of the vocational education law in time for the districts to put such courses or schools into operation at the beginning of the school year in September.

In spite of the fact that State aid for this type of education became available so late in the summer, much progress has already been made in the establishment of vocational schools and departments. Since August 1, 1913, 21 school districts in 17 different counties have qualified for State aid by establishing various types of vocational schools and departments.

Twenty more school districts in 11 other counties are either considering the advisability of establishing such vocational schools or courses, or have already definitely decided to do so. These will be put into operation in September, 1914.

According to the present rate of development about 30 counties, nearly one-half the number of counties in the State, will be participating in September, 1914, in the State aid granted for vocational education.

Types of school.—There are three different types of vocational schools in operation in Pennsylvania at the present time: The all-day school, the evening school, and the part-time or continuation school.

Bulletins.—Bulletins have been issued containing the regulations governing vocational schools as approved by the State board of education, as indicated below. Copies of these bulletins may be obtained from the vocational division, department of public instruction, Harrisburg, Pa.

No. 1. Vocational Education in Pennsylvania.
No. 2. Agricultural Schools and Departments.
No. 3. Evening Classes in Industrial Education.
No. 4. Household Arts Schools and Departments and Evening Classes.

Agricultural education.—During the present school year five high schools located in as many different counties have maintained successful vocational departments of agriculture. In each case the department of agriculture is in charge of a trained supervisor. The men in charge of the five departments now in operation are graduates of agricultural colleges, and were, with one exception, born and raised on farms. They have all had farm experience.

The five high schools maintaining vocational departments of agriculture are as follows: Waterford, Erie County; Montrose, Susquehanna County; Troy, Bradford County; Honesdale, Wayne County; Mount Pleasant Township, Westmoreland County. At least five other high schools in as many other counties will establish similar vocational departments of agriculture, beginning September, 1914.

The qualifications of high-school supervisors of agriculture are very definitely outlined in the requirements governing vocational agricultural schools and departments as approved by the State board of education. These provide, among other things, that such a teacher must have both practical farm experience and scientific training in agriculture.

The following extracts from a report prepared by the division of agricultural education will give some idea of the scope of activities under way in the State:

In connection with the study of poultry raising in the department of agriculture of the Honesdale High School, various feeding and fattening experiments were carried on. Between 30 and 40 chickens, representing 9 different varieties, were used in these experiments, the chickens being kept in one of the basement rooms used by the department of agriculture.

The following was taken from one of the Honesdale papers at the time of the Farmers' Institute early this winter:

Among the most interested listeners at the Farmers' Institute, with notebooks in hand, were the members of the agricultural class of the Honesdale High School, in charge of Prof. Champion. These boys have studied farming enough so that they understand the terms in which the speakers handle their subjects. It does not take much of a prophet to foretell that there will be more scientific farming carried on in Wayne County in the near future than ever before in its history.

Every boy enrolled in the vocational department of agriculture in a high school must carry on an agricultural project each year. Most of these projects are projects in connection with farm crops and are carried on at the home farm. Some of them are poultry projects which run for a period of one year.

The following are a few of the projects taken by some of the boys: To determine the cost of raising an acre of potatoes; to determine the cost of producing an acre of corn; to determine the annual profit per fowl on a flock of 50 chickens; to determine the fattening qualities of various poultry rations; to determine the efficiency of various hog-fattening rations.

County Supt. J. J. Koehler and James S. Champion, supervisor of agriculture of the Honesdale High School, have organized a poultry club among the boys of Wayne County. Between 60 and 75 boys had enrolled before April 1, and applications were coming in every day. A poultry show will be held at the Honesdale Fair next fall,

at which time all of the boys enrolled in the poultry club will exhibit their fowls. Very substantial prizes have been offered.

Farmer's evening classes.—On the evening of March 10, 1914, the agricultural department of the Troy High School opened a series of meetings for farmers and others of the community interested in agriculture. At these meetings most of the time was devoted to the following subjects: Soils and fertilizers; dairy feeds and principles of dairy feeding, including instruction in the balancing of rations, etc.; crop rotations and crop culture, etc.

Poultry inspection trips.—Only one poultry inspection has been made this spring by the students of the department of agriculture of the Troy High School, but it was interesting to note how quickly the students recognized flaws in management, and how easily they could diagnose the condition of the fowls and the reasons for such conditions.

Poultry fattening experiment.—Poultry fattening experiments conducted by the students of the department of agriculture of the Troy High School last fall showed that profits in fattening poultry can be made only where a large flock can be handled, and that the fowls should be taken before they have reached their full growth. The condition of the fowl at the beginning of the experiment should be good, and the fattening period should be shortened to not more than 15 days, as after that time the cost of gain is greater than the increase in value.

Homemaking.—The department of homemaking of the Montrose High School gave a very interesting and practical series of evening short unit courses in cooking. Food values, feeding growing children, meats, the fireless cooker, and fuels were some of the courses given. In the group of persons taking these courses were teachers, clerks, stenographers, dressmakers, storekeepers, and housekeepers, the latter predominating. Ages ranged from 20 to about 50 years. The lessons were given by Mrs. Rebecca L. Gilpin, who has made a success of the homemaking department in this high school.

Similar reports are available from other agricultural schools, and from experiments under way, but must be omitted here for lack of space. Readers desiring further information are referred to the bulletins of the division.

Present tendencies.—While the vocational law in Pennsylvania provides for the all-day industrial school, the development thus far has been in the evening industrial school offering trade-extension courses, and in the continuation school. This is explained by the division as follows:

> This development is due to several factors, among which may be mentioned: (1) The time intervening between the passage of the act and the opening of the school year in September, 1913, was entirely too short to organize and equip schools so as to properly conduct day industrial work. (2) The needs of the men and boys now at work in the industries were very urgent, and it was possible to organize the evening trade-extension classes before the middle of October and still do efficient work before Easter. (3) It was possible to secure teachers for these evening trade-extension classes, inasmuch as employment as a teacher in the evening industrial schools did not interfere with day employment. (4) An investigation of the day industrial schools now in operation in several States showed that for the amount of money expended, and the small group served by the day industrial school, it does not yield as large a return as either the evening industrial or the continuation school. (5) Vocational education is not a problem which can be solved by the schools alone. The manufacturers have a definite part to play in this great work. Their part is to furnish the practical instruction, and the part of the school is to give the related technical and academic instruction. Whenever the instruction is given in the all-day industrial school the manufacturer does not asume his definite obligation, but it is shifted to the school. On the other hand, when the instruction is given in the continuation or evening industrial classes we have the ideal combination; that is, the manufacturer is using the equipment of his plant to give the practical instruction, while the schools are presenting a course in related technical and academic studies properly correlated with the practical work.

Evening industrial classes were conducted in the following places: Nanticoke, Wilkes-Barre, Scranton, Ellsworth, Cokesburg, Williamsport, Altoona, Philadelphia, Shickshinny, Pittsburgh, Wamanie, and Shamokin.

Classes for mine workers.—The evening industrial classes conducted in Nanticoke, Wamanie, Shickshinny, and Shamokin were devoted to instruction for mine workers in the anthracite region. An analysis of the mining industries was made, and courses were planned so that the men attending the night school would receive valuable assistance in their regular employment. Such subjects as mine gases, mine ventilation, mining law, mine surveying, mining arithmetic, drawing suitable to the needs of the men employed about the colliery, elementary mechanics, and electricity adapted to the needs of the breaker boy and motor runners were taught in the evening industrial schools.

In the absence of a text adapted to the needs of these evening mining classes Mr. J. J. Walsh, mine inspector of the tenth anthracite district, wrote a series of 46 lessons dealing with gases and ventilation. These lessons were mimeographed in the department and forwarded to the various schools.

Applicants for teaching positions in the mining classes were examined in the several towns in which these classes were conducted. A considerable number of men qualified as teachers and were granted State certificates

The men who were employed as teachers in the evening mining classes have had experience in the mines ranging from 6 to 21 years. In some instances a successful teacher of science or mathematics was placed in the same classroom with the practical miner. By this arrangement it was hoped that it would be possible to train the practical man gradually in the art of teaching.

The advisory committees in the mining institutes have given valuable assistance to the local school authorities directly in charge of the evening mining classes. The mining institutes have employed one of their members for two weeks out of every month while the school was in session to act as a visitor. This person visited the schools, kept a record of attendance, and made it his business to keep in close touch with the men at their various places of employment. He was, therefore, in a position to know when one of them was absent and to give assistance when needed. This arrangement resulted in an increased average attendance at the evening schools. Besides visiting the schools and the students, the visitor arranged for talks to be given by citizens and by others who were experts in their particular line. At least four of these talks were given before the schools every month.

At Ellsworth and Cokesburg, evening classes were conducted for the bituminous mine workers of that district. Instruction in gases, ventilation, and mining law was given. The lesson sheets for these classes were prepared by Mr. Bach and Mr. Cooper, to meet the needs of the class.

In Wilkes-Barre shop mathematics, sketching, and English were offered to men employed in the machine shops, boiler-making shops, and foundries.

Williamsport offered courses for a number of trades, such as carpenters, electricians, and machinists.

The Philadelphia Trade School gave work during the past year in the making and reading of drawings, and shop mathematics for cabinetmakers, mechanical and architectural draftsmen, machinists, patternmakers, plumbers, and sheet-metal workers. A course was offered in making and reading drawings for bricklayers and electricians, in interior decorating for interior decorators, also several courses for printers, sign painters, and electricians.

At Scranton the equipment of the technical high school was used to give trade extension courses to machinists and patternmakers. Courses in drawing and shop mathematics were also offered for machinists, architects, plumbers, masons, and sheet metal workers.

At York a continuation school has been in successful operation for three years. The boys devote half their time to shopwork and half their time to related academic and technical subjects. The instruction in the shopwork is given in a number of shops, while the scholastic work is given in a room fitted up in the York high school. Nearly 125 boys are enrolled in this cooperative course. The majority of them are employed in machine shops, although there are several enrolled in the plumbing and cabinet-making courses.

Investigations.—In the belief that the successful introduction of vocational education into any district depends upon a thorough knowledge of industrial conditions of that community, the division has insisted that an investigation or survey be made before final action is taken. Surveys have been made in Altoona, Homestead, and a number of other places with a view to determining the need for a vocational school.

Before it was possible to determine upon the content of the course of study for the evening mining schools, it was necessary that an analysis of the mining industry be made. When this matter was brought to the attention of the Susquehanna Coal Co., they very kindly consented to place at the disposal of the expert in industrial education several stenographers and a number of men employed about the mines. As a result of this investigation, it was found that there are 50 classified jobs inside the mines and 30 classified jobs outside the mines. With the information thus secured, a course of study for the evening school was then planned. An analysis of the steel industry and textile industry will be made in the near future.

Cooperation with industry.—None of the industrial concerns that have been approached on the matter of cooperation have refused to consider the matter, and in every case they have given great assistance to the division.

The Mesta Machine Co. and the Carnegie Steel Co. of Homestead have rendered valuable aid in the preparation of plans for the Homestead school. The Susquehanna Coal Co., the West End Coal Co., the Lehigh & Wilkes-Barre, the Delaware, Lackawanna & Western, the Philadelphia & Reading Coal Co., and the Ellsworth Collieries have cooperated with the division in the development of the evening mining schools.

WISCONSIN.

Legislation.—In June, 1911, Wisconsin passed a law providing for public industrial, commercial, continuation, and evening schools. During the year 1911–12 two schools were established and maintained, one at Racine and one at Manitowoc. During the year 1912–13 schools were maintained at Beaver Dam, Beloit, Chippewa Falls, Eau Claire, Fond du Lac, Janesville, Kenosha, La Crosse, Madison, Manitowoc, Marinette, Milwaukee, Oshkosh, Racine, Sheboygan, South Milwaukee, Superior, Two Rivers, Wausau, and West Allis. The number of persons served in the day classes during that year is approximately 6,000, and a little more than that in the evening classes.

In the year 1913–14 schools were maintained in all of the above-named cities, and also in Appleton, Marshfield, Menasha, Menomonie, and Neenah. The number of persons served in day classes is approximately 11,000, and in the evening classes 14,000.

The law provides that each city of 5,000 inhabitants or over shall have an industrial board of five members appointed by the regular board of education. All cities of the State having a population of 5,000 inhabitants have complied with this law, with the exception of Baraboo, Merrill, Oconto, and Rhinelander. The State reimburses each city one-half of its expenditures in maintaining any one of these schools, provided that the State aid shall not exceed $3,000 for any one school in any one year, and that no city shall receive more than $10,000 State aid in any one year. The legislature of 1913 amended the law of 1911 by increasing the State aid from $35,000 annually to $150,000 annually. It increased the number of schools to be established from 30 to 45.

Types of school.—Four classes of school have been established under the provisions of the law:

1. Industrial school: This includes day apprentices over 16 years of age and also all-day industrial activities for persons 14 to 21 years of age.

2. Continuation school: This school is for all persons 14 to 16 years of age who are employed under labor permits, or persons 14 to 16 employed in domestic service.

3. Commercial school: This school is for persons over 16 years of age, temporarily unemployed, or for exceptional pupils who wish to become efficient salesmen or accountants.

4. Evening classes: These classes are for persons over 16 years of age.

Bulletins.—Numerous bulletins have been issued from time to time dealing with various phases of the work.

New work.—During the year 1913–14 the cities of Wisconsin spent over $400,000 for vocational education. Much of this was spent for work already begun, and the remainder for establishing and maintaining new activities. It is expected that the amount of State aid will be increased, and that during the coming year the amount spent for maintaining vocational schools and classes will exceed $500,000.

Teachers' conferences.—One important phase of the work is an annual teachers' conference and institute, lasting two or three days, and bringing together practically all of the teachers and directors of industrial schools, and many members of the industrial boards and advisory committees. The proceedings of the 1913 conference were published for distribution as Bulletin No. 8. The 1914 conference was held at Milwaukee, September 2, 3, 4.

Special problem.—The special problem confronting the department of public instruction in Wisconsin, at the present time, is to be able to foster the apprenticeship contract under the terms of the industrial education law. The number of apprentices in the State has doubled in the past year.

Investigations.—Investigations of industrial conditions are under way in various parts of the State. For this purpose a questionnaire schedule has been prepared that secures the information in form convenient for tabulation. The principal items inquired into are the wages, hours, conditions, and character of employment of boys and girls at work under 16 years of age; possibility of adjustment to the program of a continuation school; amount and character of training already acquired.

INDIANA.

Vocational education as it is developed in Indiana is based on the theory that efficient vocational education for the State should be an integral and fundamental part of the public school system of the State. The Indiana State program for vocational education involves more than merely establishing new branches of special schools devoted to the giving of efficient vocational instruction in preparation for profitable employment in the shop, in the home, or on the farm. The idea of fitting each individual in the State for some useful form of work is made a dominant purpose of the public school work of the State.

Legislation.—Three important types of work are provided for by the Indiana law:

1. County agents of agriculture may be appointed for each county in the State. Men with practical agricultural experience and scientific training, whose entire time is to be devoted to giving a sort of trade extension work to the farmers of their respective counties and helping them to become more productive in their work. Thirty-two such agents have been appointed and are successfully carrying on this trade-extension work.

2. The law requires that elementary instruction in agriculture, in domestic science, and in the industrial arts be given as a part of the regular course of instruction in all the schools of the State. Instruction in these subjects is now being given in the seventh and eighth grades and in all the high schools of the State. As a result of this

provision of the law, 114,073 pupils, a little more than one-fifth of all the pupils enrolled in the public schools of the State, were studying these practical arts subjects as a part of their regular course of instruction in the regular schools of the State last year. During 1913–14, there were 116 special township supervisors appointed to help carry on this instruction in the practical arts subjects, and special steps were taken to get teachers properly trained for this work. For the present school year the extension department of Purdue University has donated to the State department the services of three men to assist in organizing and supervising the work in agriculture. Indiana University has placed one man at the service of the State department who will assist with the work in industrial arts. All three State institutions, the State Normal College, University of Indiana, and Purdue University, will assist the department in organizing and supervising the work in domestic science by placing at the disposal of the department one trained professor from each institution to assist with the instruction in home economics in the regular schools.

3. A third line of work provided for by the Indiana law (in fact, the chief provision of the law) is the real vocational instruction to be carried on in special vocational departments and schools organized and conducted for the sole purpose of preparing for efficient and productive work in the shop, in the home, and on the farm. To stimulate and encourage local communities to establish such vocational schools in their respective communities, the State pays two-thirds the cost of instruction in all vocational schools that are approved by the State board of education. This provision of the law went into effect September 1, 1914, and special attention will be given this year to the organization and supervision of this vocational work. Some 12 or 15 centers will be organized this year and the vocational work developed as rapidly as possible. Part-time and trade extension work in evening classes are being emphasized, and it is hoped that an effective plan for vocational guidance in the regular schools may be worked out to serve as the basis for vocational instruction in all-day vocational schools. Several experiments in different types of communities will be made during the year, also, in training teachers for vocational schools.

Bulletins.—The following bulletins have been issued by the vocational division of the department of public instruction since June 1, 1913:

1. Letter of Information to Superintendents Regarding the Vocational Education Law and Work for Next School Year. Vocational Series No. 1, June, 1913.
2. Tentative Course of Study in Practical Arts Subjects for Public Schools of Indiana. Vocational Series No. 2, August, 1913.
3. The Training and Certification of Teachers for Practical Arts Subjects in the Public Schools of Indiana. Vocational Series No. 3, February, 1914.
4. Vocational Education in Indiana. Vocational Series No. 4, March, 1914.
5. Rules and Regulations Governing the Organization of Vocational Agricultural Schools. Vocational Series No. 5, March, 1914.
6. Pre-Vocational Agricultural Work in the Public Schools of Indiana. Vocational Series No. 6, July, 1914.
7. Helps for Teachers in Agriculture. Vocational Series No. 7, Part 1, September, 1914.
8. Helps for Domestic Science Work in the Seventh and Eighth Grades. Vocational Series No. 8, Part 1, September, 1914.
9. Suggestions for the Study of Vocational Education in Township Institutes. Bulletin No. 9, July, 1914.

Teachers' conferences.—Special conferences of teachers are frequently held to discuss and work out special local and State problems.

Special problems.—A number of investigations are being attempted in the study of industries for purposes of vocational instruction and vocational guidance.

CALIFORNIA.

In 1913 the California Legislature changed the central organization for educational affairs, and created a State board of education consisting of seven members. The same act provided that the State board of education should appoint a commissioner of vocational education, and in September, 1913, Dr. Edwin R. Snyder was appointed to this position. The school law is drawn in such terms that it is possible for any school district to introduce and maintain classes in vocational education. In the various high schools of the State 46 different vocations are now taught. Some of the high schools, notably those in Los Angeles, cover almost the entire group of vocations. However, the report of the commissioner of vocational education states that this subject is still in its infancy in California.

There are a few night schools in Los Angeles, San Francisco, and Oakland that are of the vocational type. A considerable proportion of rural high schools have introduced courses in agriculture, a few of which are broad enough in scope to be considered largely vocational.

The State board of education has gone upon record as favoring State aid to vocational education, and an attempt will be made to secure suitable legislation in 1915, which will be broad enough to include every type of vocational school, department, or class in any type of public school, regular day, day continuation, or night school. Steps will also be taken to modify the law governing certification of teachers, so that it may provide for vocational certificates. The legislature will be requested also to provide, in addition to the aid already given upon account of elementary and secondary schools, an amount which will approximately equal one-third of the total expenditure for instruction in vocational schools and classes.

5. ACTIVITIES OF ORGANIZATIONS INTERESTED IN VOCATIONAL EDUCATION.

The year 1913–14 has been an important one in the sphere of activities of professional teachers' and other organizations interested in vocational education. A great deal of the enthusiasm and interest, and within the past year or two, of positive and purposeful activity has been crystallized in a number of organizations that are making their several influences felt in no uncertain terms. The following paragraphs will serve to give a fairly comprehensive, even if hasty, glance at the kinds of work undertaken by the most important of these organizations:

NATIONAL SOCIETY FOR THE PROMOTION OF INDUSTRIAL EDUCATION.

The National Society for the Promotion of Industrial Education continues as one of the positive forces in the movement for more widespread and more effective vocational education. While propaganda work through the publication and distribution of valuable material on the subject is recognized as an important function of the society, it has also been engaged in such constructive work as (1) assisting to shape legislation; (2) investigations and surveys made either directly by the society or in cooperation with other agencies; (3) holding of a series of conferences, dealing with principles and policies and methods of administration; (4) cooperating with other agencies in the solution of new problems.

LEGISLATION.

Virginia.—The national society advised and assisted the Virginia State educational authorities in framing a statute authorizing local school authorities to introduce various forms of vocational education, and authorizing the State board of education to assist in the maintenance and supervision of such work.

Missouri.—A questionnaire was prepared by the Missouri State teachers' association in line with the suggestions of the secretary of the society and sent to the leading educators and business men in the State, for the purpose of ascertaining the need for industrial education in Missouri, and the best method of meeting the need. As the result of this questionnaire, a report was issued defining the various types of education, stating what had been accomplished in other States and giving results of the questionnaire as to organization, methods of control, support, and types of schools best adapted to Missouri, together with a proposed law embodying the principles of legislation set forth in the platform of the national society.

The introduction of similar legislation is now under consideration in the States of Washington, Iowa, and Michigan, and the educational authorities in these States are in conference with the national society in regard to methods of procedure and best form of legislation.

INVESTIGATIONS AND SURVEYS.

Richmond, Va.—A year ago the national society initiated the policy of cooperating with the city in which it is to hold its annual convention in making a school and industrial survey which should be made the basis of a constructive program of action on the part of the community and the national society. It was decided to hold the annual convention this year at Richmond. In accordance with this policy the society, with the assistance of the United States Bureau of Labor Statistics, the Russell Sage Foundation, and the educational authorities of Richmond, has been carrying forward an exhaustive survey of the industries and schools of the city. The survey was in the immediate charge of two experts, one from the Russell Sage Foundation and one from the United States Bureau of Labor Statistics, working under the guidance of the local survey committee, the whole survey being directed by a general committee appointed by the National Society for the Promotion of Industrial Education, consisting of representatives from the national society, and from various labor, educational, commercial, and manufacturing organizations.

That part of the survey dealing with the school side is concerned only with data that had to do with the relation of the school to industry. It aimed to obtain information upon such questions as the following:

1. Amount and causes of attendance mortality.
2. The occupations into which pupils have gone upon leaving school.
3. The present opportunities for vocational training in the public and private schools.

The industrial side of the survey sought to obtain the information necessary for determining a constructive program for vocational training for the city of Richmond. Such questions as the following were answered:

1. What is the general industrial situation in the community, such as the proportion of industrial workers to the total population?
2. What is the economic status of the community, and its social attitude toward industrial work?
3. What is the situation as regards variety and concentration of industries?
4. Do the industries concerned represent that which, from the civic and social standpoint, it is desirable to encourage?
5. What does an analysis of each industry reveal as to the demands upon the worker with respect to the knowledge and skill necessary for efficient service?
6. What does the industry itself furnish by way of training, and what must be supplied by the school?

The data obtained in the survey served as laboratory material for the convention. A synopsis of the findings was prepared in advance and widely distributed.

VOCATIONAL EDUCATION FOR WOMEN AND GIRLS.

During the past year, the following investigations in charge of a special committee on women's work were undertaken by the assistant secretary of the society, Miss Cleo Murtland:

Troy.—In Troy an intensive study of the collar and cuff industry was made, some study of department stores, together with a study of the new vocational school of Troy and its opportunities for cooperating with existing industries and social agencies.

Grand Rapids.—Immediately following the convention of the society in December, 1913, a study was made on vocational opportunities for girls and women in that city. This report presented an analysis of the industries under the heads of skilled, semi-skilled, and unskilled. Information was gathered on the types of factory workers; the range of age in the industry; the shifting or change of the workers; how the new workers entered the trade; and ending with the recommendations as to types of schools which should be established, and outlines of courses of study to be pursued in such schools.

Philadelphia.—A study of vocational opportunities for girls and women in the city of Philadelphia was made under the auspices of the Philadelphia consumer's league. The league had for five years gathered material valuable in character which was used as a basis for further study and for the preparation of a report brought before the board of education of that city, with definite recommendations on a plan for the establishment of classes or schools in women's industries.

New York City—Dress and waist industry.—Believing that part-time education is to be a most important type of vocational education, the women's committee gave an important place to the study of a typical industry, looking toward the establishment of part-time vocational instruction. The dress and waist industry of New York—an industry employing 30,000 workers, more than 80 per cent of whom are women—was chosen. The industry itself was analyzed, the occupations studied, and plans for a part-time factory school, together with plans for managing and financing the school, were presented to the Dress & Waist Manufacturers' Association and the International Ladies' Garment Workers' Union, Local No. 25. The final adoption of this report and the establishment of a school are still pending. This report was published by the United States Bureau of Labor Statistics.

In addition to this work the society has assisted, by one means or another, surveys in the cities of New Orleans and Cincinnati.

CONFERENCES.

One of the most important activities in which the society has been engaged during the past year was the holding of a series of conferences with State officials and others engaged in the administration of agricultural and industrial education.

The society has been especially fortunate in obtaining for these conferences the Goodhue estate, on Staten Island, now owned by the Children's Aid Society of New York City. This estate is maintained by that society as a vacation home for the children and teachers of their schools, and has all the facilities for housing and entertaining a large group of people. Located as it is, in the outskirts of the city, it offers an ideal place in which to conduct a conference.

These meetings have usually lasted from three to four days and have drawn from 20 to 40 men, representing 12 to 15 States and the Dominion of Canada.

The meetings have been conducted as round-table conferences according to a prearranged program, dealing with such practical questions as these: (1) State legislation; (2) administration and organization; (3) national legislation; (4) terminology and standards and procedure in the administration of State-aided vocational education.

A special program dealing with the problems of agricultural education was also carried out by members of the conference concerned with this branch of vocational education.

These conferences have served to clarify and define the aims, problems, and practice of the administration of vocational education, and have gone far to develop unanimity of opinion with respect to many controversial issues in the various States. They have served to establish efficient standards of procedure in State administration of vocational education. They have assisted in formulating terminology and practice which may be made the basis of communication between the several States. They have furthermore done much to develop a strong professional spirit and fellowship among the men engaged in this work.

RICHMOND CONVENTION.

As pointed out above, the program of the convention at Richmond largely dealt with the findings of the survey, attention being given to such topics as the following:

1. The types of schools which could be established as determined by the financial and general school conditions.
2. The types of schools and training needed as determined by the industrial conditions of Richmond.
3. The compulsory attendence problem and its bearing on vocational training.
4. The problem of the private school in industrial education.

The convention ended with a visit on Saturday to Hampton Institute, the Newport News Shipbuilding Yards, and an inspection of the Coast Artillery School at Fortress Monroe, Va.

PLACEMENT BUREAU WORK.

The calls upon this society for aid in suggesting teachers, supervisors, and directors in vocational education have increased greatly with the spread of the movement. The fact that it has not been possible for the society to supply the demand is due largely to the fact that the salaries offered have not been high enough to compete with the trade rate of compensation and to the great scarcity of persons fitted to meet the varied and exacting requirements of this new work.

PUBLICATIONS.

The society has issued the following publications during the year:

Bulletin No. 18: Proceedings of Seventh Annual Convention, Grand Rapids, Mich.

Bulletin No. 19: The Selection and Training of Teachers for State-Aided Industrial Schools for Boys and Men.

It has distributed, through the courtesy of other agencies, the following:

Bulletins, University of Wisconsin, on—
Industrial Education and Dependency.
Mechanical Engineering and Industrial subjects for correspondence study.
The Administration of State Aid for Vocational Education. Bawden.
Bulletins Department of Public Instruction, Indiana, on vocational education.
Progress in Vocational Education. Bawden.
An Endowed Trade School in a Large City. Gustafson.
A correspondence course in life insurance.
Part-Time Education in Indianapolis. Chamber of Commerce.
Constant and Variable Occupations and their Bearing on Problems of Vocational Education. Russell Sage Foundation.
Report of Missouri State Teachers' Association.
Report of Federal Commission on National Aid to Vocational Education (vol. 1).

COOPERATION.

The society has in one way or another cooperated with the following:

United States Bureau of Education—Publications and conferences at Richmond convention.

United States Bureau of Labor Statistics—Publications; the Richmond survey; arrangements for San Francisco exhibit.

State officials in charge of agricultural and industrial education—Conferences at Staten Island dealing with principles and policies involved.

Chambers of commerce of the United States: Bulletin on What Chambers of Commerce can do for Vocational Education. A. E. Dodd.

General Federation of Women's Clubs—Vocational education committee.

National Metal Trades Association—Committee on vocational education.

National Education Association:
Committee on vocational education and vocational guidance.
Department of Superintendence—Cincinnati meeting.

Russell Sage Foundation—Publications and Richmond survey.

National Vocational Guidance Association—Convention.

American Federation of Labor—Committee on industrial education.

Pratt Institute. During the past year a class for the training of trade teachers was conducted at Pratt Institute, which was in a measure a direct result of the Report on the Training and Certification of Teachers made earlier in the year by the society, and was conducted in agreement with the principles and policies laid down in that report. The society further cooperated in this experiment by conferences with the authorities of Pratt Institute and the Board of Education of New York City, concerning the aim and conduct of the work, by supplying to the class literature on industrial education, assisting in placing the graduates of the course, and by otherwise placing at the disposal of the instructor the resources of the office.

New York State Factory Investigating Commission—A study was made of the paper-box industry and department stores from the standpoint of the possibility of vocational training in these industries. This investigation, which also included a study of the wage value of vocational training, was made for the purpose of gathering information to be used in connection with a report by the commission on a proposed minimum-wage law; and, though, very brief, was conducted along the general lines previously worked out by the society in the survey of the dress and waist industry. The investigation, which was confined largely to New York City, was under the direction of Wesley A. O'Leary, of the society, who was working with the advice and assistance of C. A. Prosser.

Board of Education, New York City—Informal conferences were held from time to time with various officials in the department of education concerning problems of industrial education, especially those having to do with the examination and certification of teachers; the equipment and organization of schools; and the adaptation of the work of the lecture bureau to the industrial educational needs of the people. At the request of a committee from the board of education, a plan for the examination and licensing of teachers was formulated and presented in conference with the committee.

NATIONAL VOCATIONAL GUIDANCE ASSOCIATION.

In October, 1913, a meeting was called in Grand Rapids, Mich., for the purpose of considering the advisability of organizing a society to study the problems of vocational guidance. There was a hearty response, a large and enthusiastic attendance, and careful deliberation over the respective merits of a plan to organize as a section or department of some existing association, and of a plan to found an independent organization. After full discussion the counsel of the advocates of the latter plan prevailed, and the National Vocational Guidance Association was organized.

The constitution adopted at Grand Rapids provides for an executive council of five members, upon which rests the responsibility for directing association activity. Prof. Frank M. Leavitt, University of Chicago, was elected president, and Mr. Jesse B. Davis, of Grand Rapids, Mich., secretary. At the first annual convention, held in Richmond, Va., December, 1914, in conjunction with the meeting of the National Society for the Promotion of Industrial Education, an admirable program was presented.

VOCATIONAL EDUCATION ASSOCIATION OF THE MIDDLE WEST.

The vocational Education Association of the Middle West was founded in 1913 in response to a demand for a society to voice the vocational creed of men and women engaged in education, in commerce, or in industry. Article II of the constitution states that:

The objects of this association shall be to study problems relating to vocational education and to bring the results of this study to public attention for the purpose of fostering types of education that will meet the vocational needs of youth and the reasonable demands of industry for efficient workers, while preserving those elements of general education necessary for good citizenship in a democracy.

The leaders in the organization of the association take the position that affiliation with national associations for industrial education, while highly desirable, will not satisfy the local needs of the Middle West. For this reason it was decided to organize a society for the study of special conditions and problems in the Mississippi Valley, and to formulate plans for an effective coordination of the various agencies interested in vocational education.

The association has set up two definite aims: (1) To meet as a study class for the discussion of ways and means to promote the best types of vocational education. For this purpose members will visit industrial plants, and public, private, and corporation schools where experiments in vocational education are being carried on. The information obtained from these visits, and from other sources, will be analyzed through class discussions open to all members. These preliminary discussions will be utilized to determine the special features to be presented in public at the annual convention of the association. (2) The association will endeavor to arouse public sentiment in favor of careful legislative action, if legislation seems necessary to the accomplishment of the ends sought.

The by-laws provide for the organization of four special working committees, of 11 members each, whose duties shall be to study the topics suggested by the titles of the committees, and to present the results of such study to the committees on program and publicity. The titles of the committees are: Commercial education, industrial education, agricultural education, vocational guidance.

The permanent organization of the board of directors, to consist of the officers and 30 additional members, has not yet been perfected. It is proposed to make the board representative of all agencies interested in vocational education. The president of the association is Mr. W. J. Bogan, principal, Lane Technical High School, Chicago, and the secretary is Miss Anne S. Davis. The offices of the association are at Sedgwick and Division Streets, Chicago.

NATIONAL EDUCATION ASSOCIATION.

Programs both of the superintendent's department of the National Education Association and of the regular meeting in July tend to establish the fact that vocational education has come to be recognized as one of the permanent movements in education. This is further emphasized by the renaming of the department of the National Education Association, formerly known as Manual Training and Art, which is now to be known as the Department of Vocational Education and Practical Arts.

It is especially significant that most of the sessions held by nearly all departments at the meeting in St. Paul dealt with some phase of the problem of vocational education.

Much work has been accomplished by the special committee upon vocational education and vocational guidance, appointed at the Chicago meeting. A report of progress was presented and accepted, and an additional appropriation of $500 allowed the committee for the continuance of the work. The personnel of the committee remains the same as last year, with Robert J. Fuller, superintendent of schools, North Attleboro, Mass., as chairman.

The report of the committee this year took the form of two pamphlets:

(1) The first, 64 pages, consisted of a questionnaire submitted by the chairman to several hundred members of the association. The varied replies illustrated in this pamphlet, together with the comparative unanimity of opinion on the main issues involved, serve as a basis not only for further action of the committee, but for the assistance of any who are interested in introducing this work into school systems.

(2) The second piece of work of this committee was a report on terminology, prepared by Dr. David Snedden, commissioner of education for Massachusetts, assisted by Mr. C. R. Allen, and the chairman of the committee. The general adoption throughout the country of the terms thus prepared would result in less confusion than at present exists in the use of the terms in vocational education, not only in discussion, but in actual practice in carrying forward other work.

It is now proposed by this committee to continue the preparation of the handbook referred to last year, and to add to the previous work studies in vocational guidance under the direction of the chairman of the subcommittee, Mr. Meyer Bloomfield.

NATIONAL ASSOCIATION OF CORPORATION SCHOOLS.

The National Association of Corporation Schools came into existence in 1913 as the result of the establishment, by several large industrial corporations, of educational courses for the benefit of their employees. Thirty-one corporations sent delegates to the organizing convention, which was held in one of the recitation rooms of New York University, New York, N. Y., January 24, 1913.

Dayton, Ohio, was selected for the first annual convention, which was held in September, 1913, in the plant of the National Cash Register Company. The second convention was held in June, 1914, in the auditorium of the Curtis Publishing Co., Philadelphia.

Objects.—The officers assert that it is not the desire of the National Association of Corporation Schools, or of any of its constituent members so far as known, that the Federal Government, the State, or the municipality should prepare children to do certain lines of work in the interest of corporations. The functions of the associa-

tion are declared to be: (1) To develop the efficiency of the individual employee; (2) to increase efficiency in industry; (3) to seek the modification of courses in established educational institutions in order that they may more fully meet the needs of industry.

The officers of the association protest that in many unauthorized attempts at public explanation or criticism, its motives and purposes have been entirely misunderstood. The association professes to stand on the broad platform of education in the best interests of the individual, as well as of industry, and the social whole. "American industry needs every effort to get young men and women broadly educated, and individually developed, so far as possible. The question of specific knowledge is entirely incidental, and can be easily supplied after the individual has secured a broad education."

Membership.—Members are divided into three classes: Class A members, including commercial, industrial, and transportation companies, or governmental organizations, whether under corporation, firm, or individual ownership, which now are or may be interested in the education of their employees.

Class B members, including officers, managers, or instructors of schools conducted by corporations that are class A members.

Class C members, including those in sympathy with the objects of the association, who are not eligible for membership in class A or class B.

The class A membership numbered 56 corporations August 1, 1914. The president is Dr. Charles P. Steinmetz, General Electric Company. A series of monthly bulletins is published and distributed from the office of the assistant secretary-treasurer, F. C. Henderschott, Irving Place and Fifteenth Street, New York, N. Y.

CHAMBERS OF COMMERCE AND VOCATIONAL EDUCATION.

In a recent number of "The Nation's Business," the official organ of the Chamber of Commerce of the United States, the statement is made editorially that "all commercial organizations exist because of an intention to confer community benefit." Actuated by some such spirit as this, the local chambers of commerce in all parts of the country are taking an active interest in educational affairs, and especially, during the past year, in proposals for vocational education.

The officials of the national organization recently conducted an investigation to determine just what is being done in various cities, and report themselves as highly gratified—

> to find that commercial organizations in all parts of the country are showing definite interest in the better preparation of boys for work in the world. The results indicate that when the need of the community has been ascertained, the commercial organization is the center of an immediate effort to better conditions.

It frequently happens that the interest taken in these problems by the chamber of commerce acts as a stimulus to other agencies in the community, and in many cases serves to unite all forces in a concerted study of vocational education needs.

It is impossible in this chapter to do more than to mention a few instances, selected almost at random, from the many cities where the chambers of commerce are active. Further detailed information can be found in the official publication.[1]

Hamilton, Ohio.—The chamber of commerce took up the question of industrial education through the part-time or cooperative classes. The board of education was induced to engage a practical instructor, to enter into agreements with the principal factories by which instruction for one-half day each week is provided for apprentices who attend school on the companies' time.

Grand Rapids, Mich.—The Junior Association of Commerce is acting as a clearing house for boys and girls from the public schools who must go to work and for employers who need workers. The effort is to locate the individual in the right place with the least possible loss of time and effort.

Indiana.—The chambers of commerce in Richmond, Indiana Harbor, East Chicago, and other cities are investigating the needs for vocational education, and are studying the necessary readjustments of the work in manual training in order to make it more distinctly industrial in character, and thus comply with the industrial education law. The entire State of Indiana is being carefully worked over by the cooperative efforts of committees of the chambers of commerce, looking toward the development of efficient plans for vocational education.

Syracuse, N. Y.—A committee of the chamber of commerce is at work on a plan for directing the efforts of boys and girls from the public schools in preparing for and securing employment for which they are best adapted.

Dayton, Ohio.—The chamber of commerce, in conjunction with the Bureau of Municipal Research, has been active in a community study that includes as one of its chief divisions the problem of vocational education. The report is to cover a statement of conditions as they are, with existing facilities for meeting the needs; a summary of what inquiry shows to be the best methods now employed in other cities; and recommendations for future development.

Bloomington, Ill.—The commercial club assisted in securing a bond issue for $250,000 in the interest of the further development of vocational education and manual training.

WOMEN'S MUNICIPAL LEAGUE, BOSTON, MASS.

Since the publication, in 1913, of a "Handbook of Opportunities for Vocational Training in Boston," by a committee of the Women's Municipal League, the committee has, by request of the school department, collected information regarding organizations in the city which cooperate with the public schools. This information was published in the report of the city superintendent of schools for 1913. The "Handbook" has been given a wide circulation in the city, copies being placed in the public schools, the public library and its 12 branches, the State employment bureau, and the State department for minor wards. In addition, copies have been ordered by

[1] *The Nation's Business*, published monthly by the Chamber of Commerce of the United States, Riggs Building, Washington, D. C.

many private organizations in Boston and other cities, including associated charities, juvenile courts, newsboys' clubs, churches, social settlements, and department stores. A committee of the league is aiding in the development of the placement bureau, in which a number of organizations are cooperating.

6. NEW POSITIONS CREATED.

One of the evidences of progress in vocational education is to be found in the creation of a number of new positions for the express purpose of facilitating study and action in this field. The most important of these new positions are the following:

DIRECTOR OF VOCATIONAL EDUCATION AND GUIDANCE, PHILADELPHIA.

At the April, 1914, meeting of the Board of Education of Philadelphia, Mr. John C. Frazee was elected director of vocational education and guidance. At the time of the preparation of this report sufficient time had not elapsed for the perfecting of plans, nevertheless the following prospectus suggests the possibilities that are opening up before the new department.

Vocational education in the elementary schools.—It is desired to accomplish as much as possible of the vocational education of pupils while they are in the elementary schools. While here their opinions regarding work may be shaped, habits of personal responsibility in work formed, and the way cleared for a higher type of continuation education than if the beginning of their vocational education were postponed till the pupils were almost ready to enter employment.

It is the purpose of this department that the shopwork of the seventh and eighth years shall become really vocational. It is not intended to have a "course of study" for the shops. A considerable amount of work will be undertaken for the local school, for the homes of the pupils, for the pupils themselves, and for the board of education's supply department.

Parallel with the shopwork a "finding course" for the boys will be developed. This will be of an informational nature, and its purpose will be to bring to the boy a knowledge of the industrial and commercial business of Philadelphia and its environs. This will be the educative side of vocational guidance.

Elementary shop schools.—There are in Philadelphia, in the regular classes, 8,202 boys who are 12 years or more of age and who are two or more years over age for their classes. In addition to these, there are about 400 boys who are 12 years or more of age and who are in special classes as "disciplinary pupils," but who are not classified as "backward." Many of these 8,600 boys will be better served in elementary shop schools, which should offer five half days per week of shopwork and five half days of academic work especially adapted to their requirements. Shops in printing, woodwork, flat-metal work, electrical work, metal machining, plumbing, and pipe fitting are under consideration. These shop schools would probably not be separate administrative units, but would be departments of a regular elementary school, under the jurisdiction of its principal. With the exception of a "preparatory class" in the "Trades School," this work has not been touched.

There are also in Philadelphia 7,623 girls belonging in the same classification with the boys just mentioned. With the schools of the same membership as those proposed for the boys, 25 elementary shop schools for girls are necessary. At present there is no such school in Philadelphia.

Vocational education for backward classes.—There are in special classes in Philadelphia about 2,000 "backward" pupils over 12 years of age. Vocational training for these pupils is a problem to which attention is being given.

Preemployment vocational education.—The elementary shop school should lead many boys and girls at 15 or 16 years of age into definite preemployment vocational schools, which are neither of the elementary nor of the high-school type.

At present the "Trade School" is serving a limited number of boys in this capacity, but as yet nothing of the kind is provided for girls. It is hoped that this work will be extended for both sexes.

Vocational guidance.—Vocational guidance as contemplated will be of two phases: The educational phase, in which the pupils are made aware of the vocational opportunities and requirements confronting them; and the phase of work involved in a placement bureau, which has been authorized by the board of education.

On the former side it is designed that the manual work of all pupils in the elementary schools shall be accompanied by a definite study of local industries and business, so that by the time these pupils are ready to go into employment they may view the world of work with as much intelligence as possible.

On the side of the placement bureau it is planned that pupils will be studied carefully while in school in order that as accurate a judgment of them may be formed as is possible.

Day continuation education.—Continuation education in printing, sheet-metal work, and electrical work is now established and is receiving the hearty cooperation of the various organizations concerned. This has been developed by Mr. William C. Ash, principal of the trade school, and as far as it is developed it is on a most satisfactory basis. Local sentiment is believed to be favorable to a large extension of this work. The industrial and technical conference, a division of the Public Education Association, composed of representatives of the labor, business, and educational institutions of Philadelphia, has a large membership.

Vocational education in evening schools.—The evening trade school now accommodates over 1,500 pupils who are instructed in the theory and practice of the vocations in which they are engaged during the day. To more nearly meet the demands for such instruction, the board of education at its last meeting authorized the opening of all high-school shops for vocational instruction in the evening. Heretofore these shops have not been available for such work.

Two parallel vocational courses in the evening high school have also been authorized for booksellers. The booksellers' association of Philadelphia cooperates with the board of education in the development of these courses.

Vocational education in day high schools.—Dr. Lewis, principal of the William Penn High School for Girls, this spring brought to the attention of the board of education the fact that stenographers are being turned out in numbers in excess of the demand for them and recommended the establishment of a cooperative course in salesmanship for girls. As the result the board authorized such a course and it will be begun this fall. The girls of the three and four year classes will work half time to pay in two of the largest department stores and spend the remainder of their time in school studying appropriate subjects. The time at which the girls will work in the stores will be during rush hours, so that regular salesmen who are working on a commission basis will not suffer loss on their account. The teacher of this class will spend her time in the store regularly with the pupils.

Vocational teacher training.—It is planned to recommend this fall the establishment of vocational teacher training courses for the following groups of teachers who are now employed in the schools: (1) Elementary manual training teachers; (2) seventh and eighth grade shop teachers; and (3) special class teachers (for backward and otherwise handicapped pupils).

DIRECTOR OF DEPARTMENT OF VOCATIONAL EDUCATION, UNIVERSITY OF INDIANA.

The third State university to employ a specialist to deal with the problems of vocational education is the University of Indiana, Bloomington, Ind., which created a department in the school of education and called to its head Prof. Robert J. Leonard. Prof. Leonard began his work by giving courses in the summer session of 1914.

DIRECTOR OF CONTINUATION SCHOOL FOR TRADES TEACHERS, MILWAUKEE, WIS.

The organization of a three-year night school course for the training of employed mechanics as teachers of trades for industrial schools is noted elsewhere in this chapter. The director in charge is Prof. Wilson H. Henderson, extension division, University of Wisconsin.

SPECIALIST IN VOCATIONAL EDUCATION, UNITED STATES BUREAU OF EDUCATION, WASHINGTON, D. C.

The second session of the Sixty-third Congress voted an increase in the appropriation for the Bureau of Education, and from the funds thus made available the position of specialist in vocational education was established. The activities contemplated in this connection include a study of the problems of vocational education, the conduct of investigations likely to prove of service to the schools, and the giving of advice and assistance wherever possible.

7. ACHIEVEMENTS IN TYPICAL CENTERS.

In addition to reports from cities presented in other sections of this chapter, it is proposed now to sketch briefly the year's progress in the "new education" in a few selected communities, in order to call attention to specific phases of the movement. This is done with full knowledge that there are numerous other experiments that ought to be described, if space permitted, and many other cities that ought to be mentioned.

The special problems of the smaller cities have not as yet received the attention that they deserve.[1] It is believed that a recognition of the importance of this field and well-directed efforts to cultivate it will characterize the development of vocational education in the immediate future.

BOISE, IDAHO.

Boise has been selected as one of the communities for consideration because of the interesting and suggestive means that have been adopted to bring the school life and community life as close together

[1] See ch. 4 of this report.

as possible. Without entering into the details of organization, attention may be called to the fact that since the introduction of a rather flexible elective system, and vocational courses, the enrollment in the high school has more than doubled in four years, while the total school enrollment has increased only 25 per cent in the same period. The experience of other cities has been duplicated in Boise, in that the increase in enrollment due, in part at least, to the introduction of vocational courses, has been accompanied by a material increase in the enrollment in the so-called cultural subjects.

That is, it seems to be fairly demonstrated that young people are not drawn away in any considerable numbers from the pursuit of the traditional courses, but that the new vocational courses appeal to a clientele that the schools have not hitherto served. The extent to which this is so and the significance of the facts, whatever they are, constitute a very important problem for further study.

The special courses offered in the Boise schools and the methods employed in the effort to keep the work on a practical basis may be described as follows:

Commercial course.—Nine units of work are offered, and the work is made as practical as possible. Pupils take charge of the purchase, sale, and distribution of all high-school textbooks and supplies, and have charge of the accounts of all school organizations, laboratories, and the cafeteria. Pupils also do practical work in business offices in the community and receive school credit therefor. This department produces the circular letters for the superintendent, special teachers, and supervisors; pupils also do all the stenographic work for the principal of the high school and help with many of the school records.

Manual training.—Begins in the seventh grade and includes a certain amount of prescribed work, supplemented by opportunities for individual initiative. There are three courses in the high school: Joinery, cabinetmaking, and concrete and cement construction. Many practical projects are undertaken, such as construction of cabinets, tables, and other equipment for the cooking laboratories, drafting rooms, and commercial rooms. Boys have helped to do much of the concrete work about the high-school building. School credit is given for work done away from the school, after inspection by the instructor.

Pupils have constructed concrete flumes and head gates for the school farm, besides culverts and drinking troughs. The school board has purchased a 40-acre lot, which the boys are improving for a school playground and park. This work includes concrete fence posts, benches, and curbing for the cinder track. The annual per captta cost of this department is reported as $2.20.

Household arts.—The course includes two years of cooking and two years of sewing, classes meeting for 80-minute periods five times per week. The girls manage the cafeteria, and frequently serve lunches and dinners for various school functions. Visits are made to butcher shops and other sources of production and distribution of food supplies, making a special study of the problems of sanitation, economy in buying, and the like.

In the sewing and milinery department many girls make their own clothing and hats. It is reported that the department stores have complained that too many girls are making hats instead of buying them.

Drafting.—The courses in mechanical drawing are similar to those found elsewhere. The course in architectural drafting has been responsible for producing complete sets

of blue prints and specifications for a number of houses which have been built in Boise. Two of the public school buildings were designed by the department and all necessary blue prints and specifications drawn by the boys, thus saving the cost of the architect on about $70,000 of construction. It is doubtful if this particular feature of the work can be commended for all small communities, as the amount saved in architect's fees might easily be dissipated in uneconomical or defective construction without the facts being discovered until too late. If an instructor is available who has had practical building experience, and who can assume the responsibility involved, the plan has many advantages and attractions.

Agriculture.—The aim of the four years' course is to train definitely for the farm by giving actual practice in farm operations. A special chemical laboratory for agriculture is provided. Students bring samples of soil from their home farm for analysis. The courses offered include: Farm crops, farm soils, farm mechanics, horticulture, farm animals, farm chemistry.

Since Boise is an important distributing center for agricultural implements, a plan has been developed by which boys from the high school conduct field demonstrations of farm machinery for prospective purchasers.

The school board owns some stock, and a dairy association has been organized with a membership of about 50 owners of dairy cows. The boys test several hundred cows each month, keep records of food and milk production, and make regular reports. Several farm surveys have been made to determine the phases of farm work that are practicable.

In various other ways that might be mentioned the public schools of Boise seem to be rendering practical community service in addition to what has been the traditional work of the schools—teaching reading, writing, and arithmetic—and there is evidence that the fundamentals are not suffering because of the awakening interest in the new lines of effort.

SPRINGFIELD, MASS.

The Springfield school system is facing the problem of meeting the wide range of demands that are being made on it in the field of manual and vocational training. The present organization includes:

1. Handwork in the first five grades for boys and girls, part of which is an industrial trade, as illustrated in the studies of transportation, small house building, cement block work, and block printing.

2. Special handwork for the feeble-minded classes, taking into account the personal interest and pathological needs.

3. Special handwork for retarded groups, as suggested by special interest, and offering direct application to the fundamental studies.

4. Manual training for grammar-school boys in the sixth to ninth grades, inclusive (Springfield has the nine-grade system), having a strong industrial tendency and showing a relation to the activities of the city. Some of the projects are: Small house frames, derricks, bridges, cement work, the telegraph, and printing.

5. Practical arts or prevocational work to groups of boys and girls 12 years of age and over who for various reasons can not complete their schooling and presumably will profit by the course. The morning is devoted to classroom work, and the afternoon to the active or prevocational work. One teacher has charge of both kinds of work, and uses the experience of the afternoon work to vitalize the morning classroom work. In the afternoon, the boys have experiences with a variety of trades, each trade furnishing work from six to ten weeks. These experiences consist of carpentry needed about the school building, cement work in the building or about the yard, school furniture made with the aid of jigs, electrical wiring in the building, and printing for their own and other schools. It is intended that gardening and some simple business

experience be included. Specialists are called in from different trades, as occasion demands, to give the children contact with people actually in the trades who can keep work within practical bounds. These experiences offer many opportunities to the teacher in applying the classroom work. Arithmetic and English may be made to deal with all of these activities; history with electrical work and printing; and geography with cementing, woodwork, and electrical work. The training, of course, offers special opportunities in the English work. These practical arts groups are not considered as feeders to the vocational school, but are conducted as distinct educational units. There are several modifications of this plan in operation in different parts of the city, each adapted to the practical needs of the locality. Groups of girls are to be organized on the same basis as the boys' groups, with such activities as cooking, nursing, sewing, and homekeeping, bringing in a specialist when occasion demands.

6. The vocational school is a trade-training school, admitting boys 14 years of age or over who have reached the seventh or a higher grade. There are three-year courses in carpentry, pattern making, machine work, and printing. A half-time agricultural course has been organized. Pupils in this department assume their regular school work for the morning session, and give their afternoons to the agricultural work. The vocational-school boy must select his trade before entering. Attendance for the past year reached 110. The school is organized on the project basis, the experience of each boy centering around the job that has been assigned to him. There are three types of teachers: The shop instructor, who is a practical mechanic; the technical instructor, who deals with the related subjects, as shop arithmetic, drawing, etc.; and the academic teacher. Each job which the boy undertakes is attacked in the following order:

1. Making sketches in the shop.
2. Working drawings.
3. Writing specifications.
4. Writing out estimates.
5. Filling out operation sheets.
6. Doing the job in the shop.
7. Making out cost records to compare with estimates.
8. Writing complete shop notes.

The job is continued six hours a day until it is completed. These steps follow each other in order, without regard to the school program or schedule, although a record is kept of the time taken for each step. To supplement these individual experiences, the boys are scheduled for two half days per week in the classroom for courses in industrial history, industrial geography, English, shop mathematics, and citizenship studies. The boys spend one-half of their school time in the shop. The job scheme has proven to be far more efficient than the usual correlation scheme for establishing true relationship between the shop and the nonshop work. The situations about which the boy writes and estimates are real and are a part of his own experience. The kind of job given the boys has an important bearing on the success of trade training courses. No exercises or models are placed in the shop; each job is something that is wanted either in the vocational school, in another school, or to meet a cash order. Rarely does the boy make something for himself. His interest is in the doing of the job.

An effort is made to determine what are the most effective methods of starting beginners in the different trades. The method of giving exercises or models involving fundamental processes has been discarded. In 1912 the machine-shop department experimented with beginners by giving them operative work in turning out quantities of pieces, using jigs and fixtures in the process. The tests that were made indicated that the boys who had had this experience of operating jigs and fixtures gained considerably in hand skill, as well as in tool operation, over the boys who started with simple handwork projects or who were given a series of models to make on the machines.

The vocational school makes it possible for the boy, after nine or ten years' attendance at school (six or seven in the elementary schools and three in the vocational school) to go out and earn from $1.50 to $3 a day in avenues of employment that are fairly constant and offer advancement.

7. The technical high school is for boys who can attend school for 13 years and may be preparing for higher technical schooling or for the better positions in industry. For the girls, it offers college preparatory and domestic training.

Some of the branches of vocational training still undeveloped in Springfield are the continuation school, short unit evening courses for trades, and part-time courses. Mr. Egbert E. MacNary, supervisor of manual training and principal of the vocational school, has had charge of the administrative details of this work during the five years of its development.

ROCHESTER, N. Y.

When the evening schools opened in September, 1914, provision was made for courses in shop arithmetic for carpenters and woodworkers at East High School, West High School, Rochester High School, and School No. 26, instead of at East High School only as in previous years. This step was taken in view of largely increased enrollment, and in the effort to make the school facilities more available. These courses are arranged to be completed in 24, 48, or 72 lessons, according to the previous preparation of the student.

Survey.—During the summer of 1913 the chamber of commerce made a survey of three industries: Woodworking, machine and metal working, and garment making. The survey was directed by Raymond C. Keople, of the department of vocational education of the public schools. As a result of the survey a meeting was held in the rooms of the chamber of commerce in February, 1914, which was attended by practically all of the machinists of Rochester. The machinists adopted an agreement to take boys from the Rochester shop school after two years' training in the machine shop, paying them the following scale of wages per week: First six months, $8; second six months, $9; third six months, $10; fourth six months, $11. Similar agreements are being negotiated in the garment-making trade.

Part-time and continuation work.—At the beginning of the summer, 1914, the German American Button Co. requested the board of education to enter into a part-time school agreement for girls of 14 to 16 years of age. Girls who applied for working permits from January to July were interviewed to enlist their interest in a plan of weekly alternation between school and factory. Twenty girls are taking the course, of whom 10 are working on the alternate week basis. The girls receive preliminary training at the school, including sewing and cooking.

A summer class is conducted at the Rochester shop school for printers. After a three months' try-out course at the school, the boys are employed in printing establishments at an initial wage of $4.50 per week. The boys work in the shops and attend school on the alternate week basis.

Evening courses.—Bulletin No. 4, September, 1913, is entitled "Information Concerning the Public Evening Schools." It gives a list of 185 courses offered in the evening schools for 1913–14, classified as follows:

General courses:		
Common branches	4	
Manual training	3	
English for foreigners	2	
Physical training	2	
Music	1	
		13
Commercial courses		13
High-school courses:		
History	1	
Language	14	
Mathematics	7	
Normal	2	
Science	4	
Applied chemistry	4	
		32
Home-making and trade courses for women:		
Handwork	3	
Cooking	14	
Design	4	
Dressmaking and plain sewing	13	
Embroidery	3	
Millinery	7	
General home making	6	
		50
Technical and trade courses for men:		
Cabinetmakers	7	
Carpenters	6	
Electricians	10	
Machinists	3	
Opticians, lens makers	2	
Pattern makers	4	
Plumbers	8	
Printers	5	
Sheet-metal workers	3	
Steam fitters	6	
Normal courses, trade teachers	2	
		56
Preparatory courses for municipal civil-service examinations		16
Preparatory courses for United States civil-service examinations		5
Total		185

Follow-up work.—The department of vocational education has followed up every boy or girl who has left either trade or vocational school, securing information regarding character of employment, rate of wages, life ambitions, etc. Studies are being made of the earnings of trained and untrained boys. An important phase of the vocational work is the visiting of industrial plants by the boys and girls of the vocational schools. About 70 trips were made during the past year to factories representing all types of industry.

SIOUX CITY, IOWA.

In 1913 a survey was conducted under the direction of the board of education in cooperation with the commercial club. As the result of this study, some very interesting and profitable work has been accomplished during the past year, especially in the organization of recreation and playground facilities and social centers.

A beginning in vocational education has been made by the establishment of a department of printing in the high school, under the direction of a practical and experienced printer who had been at the head of the mechanical department of a prominent daily newspaper. A course of study has been organized covering four years of work. Two hours per day are devoted to subjects other than printing, among them shop mathematics, principles of reporting, and journalism.

The printing department has been more than self-sustaining, if account is taken of its product. It has done all of the printing of the board of education, including numerous reports, course of study, examination questions, reports and programs of the Northwestern Educational Association, and other work. The department has the indorsement of the typographical union.

The commercial department has been completely reorganized, and now offers one-year, two-year, three-year, and four-year courses, each of which is so arranged as to lead definitely into the one of next higher standing. A pupil is thus able, after completion of one of the shorter courses, to continue his work in another course without loss of time or repetition of work done.

Considerable progress has been made in organizing the work in vocational guidance, which Sioux City prefers to term vocational information. In this work it has been possible to enlist the interest and support of the commercial, industrial, and professional men of the city. The work which the young people have done has brought them so definitely in touch with various forms of activity going on in the community that business men are convinced of the practical value of what is undertaken.

As a result of this enlisted interest the manufacturers' association tendered a banquet to the members of the classes in vocational information, at which time there was presented a full discussion of what Sioux City is doing and the requirements and conditions for success in the various departments of industrial and commercial effort. This was followed, a little later, by a banquet given by the commercial club to representative students from all the schools of the city, with the same general purpose.

The installation of the shops in the new high-school building was made the occasion of reorganization and enlargement of the work in

manual training. It is the intention of the board of education to develop this work along lines more definitely practical and educational than has been the case hitherto. The equipment has been carefully planned, and is quite complete for the purpose.

A thoroughly practical woodworking man has been put in charge of the shops, in order that the work may be in accordance with the procedure in industrial shops. Some of the practical problems undertaken include: Dining tables for use in the cafeteria, stools, bookcases, kindergarten tables, sand tables, and the like. Metal shops are to be developed later on similar lines.

The domestic science in the high school has been reorganized, also, and the course now requires two years of work in the grades for entrance. The problems for study in the high school deal with the scientific values of food, the cost of living, dietetics, home nursing, and other allied topics. Girls may now take special courses in household chemistry and household physics.

Continuation classes in salesmanship have been organized for department store clerks. In conjunction with the State University of Iowa, night school courses will be offered in gas engines, carpentry, shop mathematics, and other branches for which there may be demand.

CINCINNATI, OHIO.

Cincinnati has probably received its share of attention from the public by reason of the important educational experiments that have been conducted there during the past few years by the public school department, the University of Cincinnati, and other agencies. Nevertheless, it may be worth while to note briefly a few significant points.

Continuation school.—Three quite distinct forms of continuation schools have been developed in Cincinnati: (1) The apprentice school for machinists' and printers' apprentices; (2) the compulsory school for pupils at work between the ages of 14 and 16 who have not completed the eighth grade; (3) voluntary classes for mothers and young women.

The compulsory continuation school was organized in 1911, an attendance of four hours a week being required of all pupils at work between the ages of 14 and 16, until the completion of the eighth grade. Subsequent legislation and a ruling of the attorney general have considerably modified the plans and organization of this school. In September, 1914, the school will be confined almost wholly to a small group of 15-year-old boys. Because of these enforced changes the administration is now applying itself to special problems: The possibility of organizing voluntary classes for young people beyond the compulsory school age who are at work, and the necessity of

doing something to meet better the needs of the young people retained in school.

Under the first, salesmanship classes have been organized in three of the large department stores, a teacher from the continuation school being sent to each store for two lessons per week. Under the second, considerable attention has been given to the problem of varying the instruction and plans of work to meet the needs of pupils between 14 and 16 who, in the future, will be retained in school, but who will leave as soon as the law permits.

A committee of principals appointed by the superintendent of public schools has prepared a report on a plan for prevocational classes, which has been adopted by the principals' association. This plan provides for special classes for children who are ineligible for the continuation school; the time of the classes is to be divided equally between shop work and academic work, the academic work to be closely related to the industrial work; the industrial work of these classes is to be of the widest possible diversity in order to afford the child the greatest variety of opportunity; each elementary school is to care for its own prevocational classes wherever possible, and, when necessary, centers are to be established in which the work may be carried on. The report of the committee recommends that the work shall be so "conducted that these children shall not feel that they are in school simply to spend the time till they can go to work, but shall be inspired to further work and higher education." The report further recommends that teachers of the greatest skill and sympathy shall be selected for both the industrial and academic work.

Industrial education survey.—The eighty-fourth annual report of the superintendent for the year ending August 31, 1913, contains the outline of a plan for an industrial education survey, the first step in which is to be a survey of the printing trades. This, it is hoped, will indicate the kind of training that should be offered in preparation for efficiency as wage earners. After the printing trades have been studied it is purposed to undertake similar studies of the clothing, shoe, and building trades, and possibly others later.

These studies are made possible by the action of the directors of the Cincinnati Chamber of Commerce in their decision to finance the survey and to conduct it in cooperation with the educational authorities. In addition, the cooperation of organizations of employers and and employees has been secured. The Central Labor Council has appointed a committee on industrial education for this purpose. The chamber of commerce has assigned to this work Mr. C. R. Hebble, its civic and industrial secretary; and the superintendent of public schools has assigned Mr. Frank P. Goodwin, of the Woodward High School.

Vocational guidance.—The vocational guidance movement in Cincinnati began during the last school year with groups of eighth-grade teachers who have been studying the question, and the teachers of Woodward High School who have been experimenting with it in its relation to high-school students.

Those who have given attention to this problem in Cincinnati have reached these tentative conclusions with reference to vocational guidance:

> Vocational guidance should be an educational process; the life-career motive should be used as a means of prolonging the period of school life; the business of the teacher should be to direct the child to that kind of education for which he is best adapted and which will best prepare him for the vocation of his choice; and school courses and methods of instruction should be adapted to fit pupils for the work which they are likely to do.

Since the present curriculum already utilizes all of the available time of teachers and students, it has been decided that no additional course of study should be arranged to accommodate the work in vocational guidance. This instruction has been included in a course in civics, thus emphasizing the natural connection between vocational success and good citizenship. In addition to regular classroom instruction, the work consist of lectures by citizens qualified to speak on the various phases of vocational life and of visits to industrial plants.

THE VOCATIONAL SCHOOL OF THE LOYAL ORDER OF MOOSE AT MOOSEHEART, AURORA, ILL.

One very significant item in the evidence of progress in vocational education is found in an experiment on a large scale now being conducted at private expense a few miles outside of Aurora, Ill. A half million members of the Loyal Order of Moose are putting a half million dollars annually into building a "vocational university" on a 1,000-acre farm on the Fox River, about 35 miles west of Chicago, to care for the education of all normal orphan children of indigent members, who are to be sent to the institution under contract to remain until the age of 21 years.

Range of activities.—The child may select agriculture or horticulture, the raising of cattle, hogs, sheep, horses, or poultry, according to his bent, or he may select any one of the building trades or printing.

Half of the time of the pupil is spent in academic studies and half in the chosen vocation. When the first class of children is ready for the technical high school the building and instructors will be ready, and so, too, with provision for higher technical education.

Financial support.—Each of more than a half million Moose members pays, with his quarterly dues, 25 cents into the Mooseheart fund. It is expected that the order at the end of five years will have in resi-

dence at Mooseheart several thousand children, but not more than the $500,000 annual income will provide for. Every child willing to acquire the higher technical education will be given it, and the boy with a bent for farming, or the girl with the bent for cooking or home-keeping, will be taught the underlying scientific facts of the chosen calling.

Capacity.—There are 145 children now at Mooseheart, and 44 others have been accepted by the board of governors. Provision will be made for wintering 215 children in 1914–15, and for three times as many in the following winter.

The children are governed by the "assembly," which they themselves constitute, and in which they make laws and administer justice for themselves.

CONCLUSION.

In conclusion, it may be well to call attention to the fact that during the past year there have been a number of ill-considered attacks upon public-school work in manual training and the household arts, made by overzealous advocates of what they are pleased to call "real" vocational education. These criticisms seem to be animated by the notion that the best way, or one good way, to advance the cause of vocational education in the public schools is to discredit the work attempted under the name of manual training. Some of these pronouncements have contained nothing whatever of a constructive nature, and consequently very little real good can be traced to them.

There are clear and unmistakable distinctions between thorough vocational training, given by practical teachers who know through wage-earning experience the occupations for which they are attempting definitely to prepare pupils, and the work now done in many school systems as manual training and household arts. There is no need of confusing the two. It must be acknowledged that the manual training as carried on in some places is appropriately characterized as "a foolish waste of time." On the other hand, there can hardly be a successful denial of the proposition that the best of the manual-training work is just as essential and just as defensible as a part of the complete plan of education as anything that has yet been suggested under the name of vocational education. It can not be too strongly emphasized, therefore, that there is a better way to advance the interests of vocational education than to tear down or discredit anything that is worth while in other departments of the public-school system.

CHAPTER XII.

AGRICULTURAL EDUCATION.

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Contents.—Introduction of agriculture into the curricula of high schools—Agricultural education at meetings of the year—Agricultural education in other countries—Educational work of the Department of Agriculture—Educational work of the Office of Experiment Stations.

The movement for the introduction of agriculture into the curricula of public and private high schools continues as rapidly as in preceding years. Its extent may be estimated from the annual reports submitted by such schools to the Bureau of Education, which show the enrollment in various courses—academic, commercial, technical or manual training, training courses for teachers, domestic economy, and agriculture. In 1913 there were in all 13,445 public and private high schools, with approximately 1,283,000 pupils. Of these, 1,414 schools reported agricultural courses, with 29,825 pupils taking such courses. In 1914 the total number of schools had increased by 269, and the number of pupils by 90,652. There were 1,677, an increase of 263, reporting agricultural courses, with the number of pupils in such courses as 34,367, an increase of 4,552 over the previous year. In these annual reports no attempt is made by the bureau to determine whether the agricultural courses reported are "vocational" or "informational," or whether they are more or less than a full year in length. Such information has been collected at other times, however, and it is undoubtedly true in 1914, as in previous years, that the majority of agricultural courses reported by these 1,677 schools are brief textbook courses that deal with general information relative to agriculture and extend from a quarter to a full year. In very many, however, thoroughgoing, practical vocational courses extending from two to four years are given, and the number in which the practical course is replacing the textbook course is rapidly increasing.

Data relative to the public and private high schools teaching agriculture are given in the tables below. It will be noted that approximately 40 per cent of the pupils reported in agricultural courses are females. In a certain way this is an indication of the character of

the courses, since the individual reports of the schools show that relatively few girls are enrolled in agriculture in the schools where such work is on the vocational basis and many are enrolled in the schools where informational textbook courses prevail. The names of the individual schools with agricultural courses, together with the number of students, are included in the annual Report of the Commissioner of Education for 1913, Volume II, chapter 11, pages 495–516. Similar data for the following year are given in Volume II of the report for 1914.

Public and private high schools teaching agriculture, and number of pupils studying this subject in the school years 1912–13 and 1913–14.

Schools.	Year.	Schools.	Boys.	Girls.	Total.
Public high schools	1913	1,297	18,147	9,446	27,593
	1914	1,553	21,702	10,319	32,021
Private high schools	1913	117	1,602	630	2,232
	1914	124	1,767	579	2,346
Total in all high schools	1913	1,414	19,749	10,076	29,825
	1914	1,677	23,469	10,898	34,367

Public and private high schools—Number of schools reporting agricultural courses—Number of students in such courses, 1913–14—By geographical divisions.

	Schools reporting.	Boys.	Girls.	Total.
United States	1,677	23,469	10,898	34,367
North Atlantic Division	142	1,832	499	2,331
North Central Division	932	11,108	6,419	17,527
South Atlantic Division	139	1,938	852	2,790
South Central Division	304	5,628	2,594	8,222
Western Division	160	2,963	534	3,497

The distinction between "high schools with agricultural courses or departments" and "agricultural high schools" is not as clearly indicated by their work as might be expected from their names. The group of secondary schools reported each year by the bureau as "agricultural schools" and "agricultural high schools" include such special agricultural schools as the congressional district agricultural schools of Alabama, Georgia, Oklahoma, and Virginia; the State agricultural schools of Arkansas, New York, North Dakota, Vermont, and Minnesota; the county agricultural schools of Wisconsin, Mississippi, etc. Altogether, 115 such schools reported to the bureau in 1913, and the same number in 1914. They are distributed among the geographical divisions as follows: North Atlantic Division, 10; North Central Division, 19; South Atlantic Division, 30; South Central Division, 54; Western Division, 2. It will be noted that 86 out of the 115 are located in the Southern States, where the number of regular high schools is relatively small. None of the schools in the Southern States confine their work to agriculture and the allied sub-

jects. They include in their curricula many of the ordinary high-school subjects, in addition to those absolutely essential in a vocational agricultural school, serving for a part of their students as ordinary high schools. In fact, the district agricultural schools first established offered during the early years of their existence courses differing but little from that of the traditional high school, with two additional subjects—agriculture and household economy. There are many high schools with agricultural departments in the same group of States that are doing better work in teaching vocational agriculture than the majority of the special schools. In the Northern and Western States, where regular high schools are more plentiful, the special agricultural schools devote their time and energy more strictly to vocational agriculture.

A brief summary of the tables in Volume II of this report on the special agricultural schools is given below. For the complete summary the detailed tables of Volume II should be consulted. Similar statistics for the preceding year were included in Volume II of the Report of the Commissioner of Education for 1913, chapter 11, page 537.

Schools of agriculture, 1913–14.

	Schools reporting.	Instructors.	Total pupils.	Pupils in agricultural courses.				Total.
				Elementary.		Secondary.		
				Male.	Female.	Male.	Female.	
United States	115	947	19,096	2,169	1,720	5,187	3,744	12,820
North Atlantic Division	10	98	1,449	472	78	507	198	1,255
North Central Division	19	190	3,836	326	336	881	520	2,063
South Atlantic Division	30	238	4,961	369	407	1,282	871	2,929
South Central Division	54	394	8,505	927	834	2,402	2,065	6,228
Western Division	2	27	345	75	65	115	90	345

Among the colleges, agricultural courses have been announced in a few additional institutions. The total number now reporting agricultural courses of college grade is seven, in addition to the 48 State colleges of agriculture. Few of these institutions are equipped to give courses comparable with those given by the State institutions.

Among the State agricultural and mechanical colleges there has been unusual activity in the adjustment of organization, courses of study, and methods of instruction, due largely to the increasing demands placed upon them for graduates to go forth as teachers of agriculture in secondary schools and as agricultural extension workers. The demand that both agricultural teachers in secondary schools and county agricultural agents be "practical" farm men with wide farm experience has brought to the attention of these State institutions more strongly than ever before the need of requiring a definite amount of farm practice both for entrance and gradu-

ation. Several institutions already are requiring all students not familiar with ordinary farm operations at entrance to college to acquire a knowledge of such operations by actual work upon the college farms or approved neighboring farms. This work is in addition to the regular college courses. At least two State colleges—California and Pennsylvania—require all students in agriculture to devote six weeks of the summer, between the sophomore and junior years, to farm work on an approved farm or to work in an approved commercial establishment where such work is closely related to the students' major subjects. The Minnesota agricultural college rents two farms for the benefit of students specializing in farm management and for work as county agents, each farm being sublet to a student. The student pays cash rent on the farm and receives $600 salary and his subsistence and one-half the net profits, if profits result. He manages the farm for a full year from the beginning of the last semester of his senior year and receives in addition to his bachelor's degree a special certificate. The Wisconsin agricultural college has prepared a list of certain farms selected by the faculty which are used for farm practice for advanced students under what the institution calls its "accredited farm system." A contract is made between the owner of each farm and the college, specifying the conditions under which the student works. For a full year's work on one of these farms, with supplementary reading, study, and investigation as outlined by the college, the student receives a half year's credit for his bachelor's degree. These few illustrations will serve to show the changes in instructional work among the agricultural colleges, resulting from the new demands placed upon them. Other changes of almost equal importance with those indicated here have been made in the regular course of studies.

The call for graduates of the agricultural colleges as teachers of agriculture in secondary schools is due in part to the increasing number of public and private high schools including agriculture in their curricula, but more to the rapidly growing demand that the agriculture taught by these institutions shall be of a vocational character. This matter is discussed later in this chapter (see p. 297). The demand for graduates for county agricultural agents is due in part to the passage of the Smith-Lever bill by Congress during the spring of 1914. The extension teaching activities of the agricultural colleges, such as "farmers' institutes," "educational trains," "movable schools," "demonstration farms," etc., have increased by leaps and bounds during the past few years. However, the passage of the Smith-Lever bill during the spring of 1914 has caused greater activities in the colleges in adjusting themselves to the increasing work for which they will be required to provide. The provisions of this act are given later in this chapter.

There has been agitation for several years for the establishment of a Territorial agricultural and mechanical college in Alaska, to be supported by land grants and to share in the appropriations of Congress made for the benefit of the State colleges of agriculture and mechanic arts. The first step toward this has been secured in the passage of an act by the Sixty-third Congress, reserving lands to the Territory of Alaska for educational purposes. This act sets aside two sections in each township as soon as the public lands of the Territory are surveyed, to be reserved from sale or settlement for the support of the common schools, and one section in each township in the Tanana Valley between parallels 64 and 65 north latitude and between the one hundred and forty-fifth and one hundred and forty-second degrees of west longitude for the support of a Territorial agricultural college and school of mines when such an institution is established by the Legislature of Alaska. Four adjoining sections in four different townships have been reserved for the site of the college. Part of this land reserved is now used by the Government of the United States as an agricultural experiment station, and the act of Congress provides that it may continue to be so used after the college has been established.

Among the negro agricultural and mechanical colleges there are several developments in the interest of more efficient work in agriculture. The new Tennessee Agricultural and Industrial State Normal School for Negroes is now fully under way at the location purchased by the State three years ago at Nashville. The agricultural and mechanical institution for negroes of Louisiana is now located on a 500-acre farm on the Mississippi River, a few miles north of Baton Rouge. The old plant at New Orleans has been disposed of. New buildings, consisting of an administration, classroom, and laboratory building, a dormitory for girls, a dormitory for boys, a heating and power plant, have been erected at a cost of approximately $60,000, and the old farm buildings on the grounds are now used as carpenter shops, blacksmith shops, for laundry purposes, and for a dining hall. The school was held during the last half of 1914 on the new grounds in the old farm buildings purchased with the grounds. The new buildings were not ready for use until January, 1915. A similar movement to remove the negro Agricultural and Mechanical College of Arkansas from within the city limits of Pine Bluff out into the open country, either in the vicinity of Pine Bluff or in some other part of the State, is well under way and will probably be effected during the coming year. The name of the West Virginia institution for negroes has been changed from the "West Virginia Colored Institute" to the "West Virginia Collegiate Institute."

References have been made above to the Smith-Lever bill. Much confusion has existed with regard to the two measures, which have been before the United States Congress during the past half dozen

years, proposing Federal aid to education in agriculture, household arts, and the trades. The confusion has been due largely to the similarity in the names of the bills and to the fact that the provisions of one were at one time included in the other. These two bills are the Smith-Lever bill, introduced into the Senate by Senator Smith, of Georgia, and into the House by Representative Lever, of South Carolina, and the Smith-Hughes bill, introduced by Senator Smith and Representative Hughes, both of Georgia. The Smith-Lever bill has been enacted into law, having been approved by the President on May 8, 1914. The Smith-Hughes bill was before the Sixty-third Congress, which ended March 4, 1915, but from lack of time received little consideration. It undoubtedly will be reintroduced in the Sixty-fourth Congress.

The Smith-Lever bill provides Federal aid to the State agricultural colleges for cooperative agricultural extension work with the United States Department of Agriculture. By extension work is meant giving instruction and practical demonstration in agriculture and home economics to persons not attending or resident in the agricultural colleges. This work is given in various communities throughout the States through farmers' institutes, lecture courses, one-week movable schools, correspondence courses, and in other ways usually understood to be included under the term of extension teaching. Its provisions are given later in the chapter.

The Smith-Hughes bill would provide Federal aid to cooperate with the various States in the maintenance and support of vocational schools of agriculture, home economics, and the trades and industries for persons 14 years of age and over, and in the maintenance and support of schools for training teachers for the vocational subjects in these vocational schools. This would provide vocational education to youths, not in employment, in regular day schools of high-school grade and part-time day schools, and to the youths and adults regularly employed in continuation courses in evening schools. A review of the provisions of this bill is given in the chapter on vocational education in this report (p. 239). The principal provisions affecting agricultural education are as follows:

Three separate appropriations, any one of which a State might accept, were proposed—The first for the training of teachers of agricultural, trade and industrial, and home economics subjects; the second for agricultural education, including home economics; the third for education for the trades and industries. For the training of teachers of all of these subjects the measure proposed $500,000 the first year, increasing annually till $1,000,000 is reached the fourth year and then continued as an annual appropriation, divided among the States in proportion to their total population. For education in agriculture for boys and home economics for rural girls the measure

proposed $500,000 the first year, increasing annually till $3,000,000 is reached the eighth year and then continued as an annual appropriation, divided among the States in the proportion their rural population bears to the total rural population of the United States.

The bill did not propose that the Federal Government should dictate to the States the kind of schools in which agriculture would be taught with moneys furnished by the provisions of the bill. This would be left to the State boards of education or to a special State board, if any State so desired. To the Federal Government would be reserved only the power to see that the funds were expended for agricultural education and not for other purposes than those authorized.

Of more importance than the number of schools teaching agriculture and the number of pupils enrolled in such courses is the progress in methods of teaching and in the character of the courses offered. These questions are uppermost in the thoughts of those who have the administration of the agricultural courses. A more clearly defined vision seems to exist relative to the results that may be expected from the introduction of agriculture into the schools, and adjustments in methods are following, particularly in the secondary schools. While, as previously stated, far too much of the secondary school agriculture is still "book agriculture," principally of informational value only, there is undoubtedly a rapid movement away from such courses toward the practical and vocational, intended to prepare more directly for farming. Under the influence of the larger number of agricultural college graduates now employed as teachers, classroom work in many schools is supplemented by laboratory work, field demonstration, and farm practice, to a much greater degree than ever before. This is indicated by the rapid spread of the "home project" method of teaching agriculture and by the increasing number of schools using land in connection with their instruction work. It is indicated also by the subjects under discussion at the important meetings of agricultural teachers of secondary schools and by the phases of agricultural education being investigated by such associations as the Association of American Agricultural Colleges and the American Association for the Advancement of Agricultural Teaching.

As an example of the various phases of agricultural teaching under investigation, the recent work of the American Association for the Advancement of Agricultural Teaching may be cited, particularly the work during the past two years of its standing committee known as the "Committee on the Use of Land in Connection with Agricultural Teaching." An extensive inquiry was made by this committee in 1913 in regard to the use of land in agricultural instruction in special agricultural schools, high schools with agricultural departments, and in elementary schools. The results were published in a

recent bulletin by the Bureau of Education, entitled "Agricultural Teaching" (bulletin, 1914, No. 27). Further investigation was made in 1914, the results of which have not been published. It shows, however, an increasing number of schools securing land for demonstration purposes in connection with the agricultural courses, or the use of a portion of the home farm by each student enrolled in agriculture. The committee sent an inquiry to 550 representative schools of the various types. Of the 27 special agricultural schools reporting, 25 reported that they had land to use in agricultural instruction; of 259 high schools reporting, 165 reported that they had land; and of 101 normal schools, 66 reported land. A total of 257 of the 550 schools reported that they owned land available for this purpose. In over one-half of these cases 6 acres or less were available. Sixty schools had farms of 20 acres or over. According to the reports the land is used chiefly for demonstration purposes and for growing seed for distribution. Some land is used for school gardens and for producing dormitory supplies. A small portion is used for raising materials for laboratory work and for projects for individual students. Comparatively few of the 257 institutions with available land report farm animals. Farm animals, however, are not absolutely necessary, as in most sections stock may be studied on neighboring farms. In the South, where the agricultural schools serve a large territory (usually a congressional district), students attending must be away from their homes and the home farms; consequently a larger school farm is necessary. Most of these farms are equipped with farm animals, many of them pure-bred animals used in improving the live stock in the district served by the school. Several of these schools are furnishing boys of the pig clubs pure-bred stock with which to begin their work.

While 257 schools reported school land used in teaching agriculture, a slightly greater number reported that while no land owned by the school was so used, students are required to do "home project" work. The amount and the character of the work varies greatly. There is little "home project" instruction in connection with the special agricultural schools in the South, and a great deal in connection with agricultural courses in regular high schools in the New England, the Middle Atlantic, and the North Central States. The "home project" method seems to be growing in favor rapidly in many States, particularly in those sections where the pupils in agricultural courses are living on home farms. In operation in all States it is practically the same. The "home project," or the "farming project," as it is sometimes called, is a definite piece of farm work to be done on the parent's farm "which in the preparation for doing it and in carrying it to a successful result would involve a thoroughgoing educational process." It embodies two distinct features; one is

productive farm work supervised by the special agricultural instructor or group of agricultural instructors; the other is study work related to that productive work. Both are essential, and careful supervision must be had for both. As a rule, the projects include operations extending over a full year, such as keeping a pen of poultry, raising a specified crop, caring for a few cows, including the feeding, cleaning, milking, etc. In all cases the "farm project" includes keeping careful and accurate records of the work. The work done by boys in agricultural clubs, corn clubs, pig clubs, etc., is "home project" work with printed directions substituted for the instructors. In this particular case the instruction may be said to lack breadth. This is not, however, a serious criticism, since the great majority of boys enrolled in the clubs have less than a complete elementary school education. A more important criticism is that the club work is not done as a part of the work of the school. Information concerning the general plan of teaching general agriculture through the home project is contained in a recent bulletin of the bureau.[1]

These reports are sufficient to show the trend in agricultural education in secondary schools; mention has already been made of the changes in the instructional work of the agricultural colleges.

The Association of American Agricultural Colleges, through its committee on instruction in agriculture, has made a recent study on "required farm practice" in college courses of agriculture in the land-grant colleges. These institutions, offering as they do courses in the various branches of agriculture, agricultural sciences, and allied sciences, are finding difficulties on account of the lack of a knowledge of fundamental farm operations on the part of many students, which can not be fully supplied as a part of the college course. The relative number of city boys matriculating in degree courses of agriculture is large and increasing, varying in the different States from zero to 70 per cent. The colleges feel more than ever before that students graduating must be familiar with farm practice as well as with the science of agriculture. It was for this reason the study was made. The various colleges in revising their work desired information relative to the practical farm work required for graduation in other institutions. The report of this committee, which includes a representative of both the United States Department of Agriculture and the United States Bureau of Education, has been published by the Association of Agricultural Colleges and may be obtained from the secretary of the association, Dean J. L. Hill, of the University of Vermont. The conclusions of the committee are given below, since they are an indication of the trend in instruction in agriculture in the State colleges of agriculture.

[1] 1914, No. 8, The Massachusetts Home Project Plan of Vocational Agricultural Education.

This report deals with advanced farm practice, not with the fundamental farm operations; with practice in the operations of the specialized farm as contrasted with practice of the ordinary general farm; with practice given in connection with the college courses in agriculture, not with practice which is considered a prerequisite to college entrance; with collegiate farm practice, not preparatory practice.

Practice in the handicraft of operations which constitute an essential part of the four-year college course in agriculture is necessary to illustrate and enforce the theoretical instruction in agriculture.

Practice without theory makes the "rule o' thumb" man and can be acquired more quickly and economically by hiring out to the farmer or the artisan; theory without practice develops the mind but is apt to result in the helpless theorist who can tell how things ought to be done but can neither do things nor efficiently direct others; but a judicious combination of theory and practice in college courses gives men intellectual power and enables them to direct both themselves and others in whatever lines they seriously undertake to work.

Failure to make provision for such practice decreases the effectiveness of instruction in agriculture, and students who are permitted to graduate without it bring upon the colleges merited unfavorable criticism.

At the present time collegiate farm practice is quite generally insisted upon as a feature of the instruction in every branch of agriculture, but it has by no means reached its optimum development. In connection with some courses there is too little practice; with others too much. In the main there is a feeling that there is too little practice for effective teaching.

Relatively speaking more attention to practice is given in the newer courses in agriculture, like horticulture, poultry husbandry, and rural engineering, and less in the older subjects of agronomy and animal husbandry.

The practice work is quite generally given in connection with related lecture courses in agriculture and is thus distributed over the four-year course, but some institutions make definite provision for vacation practice, or arrange for the employment of students on approved farms for a year or more, or place students in charge of farm practice projects for definite stated periods—all for the purpose of giving them practice in farming. Educational excursions may also be included among practice projects.

Among the difficulties which have hindered the satisfactory development of practice work in connection with agricultural courses may be mentioned:

(1) Large class sections due to the rapid increase in the number of agricultural students, the relatively small teaching force, and the lack of duplicate equipment for the use of individual students, and (2) inadequate funds to employ additional instructors and to purchase land, apparatus, animals, and other facilities for instructional purposes.

To remedy these conditions it is desirable, of course, to secure more liberal funds, more land, more laboratory space, and additional equipment, but in the meantime much can be done to improve the practice work by giving serious attention to securing the highest possible efficiency of the present teaching force and equipment. In the body of this report, under the heading "suggested remedies" (pp. 33-36), a few suggestions based on specific examples are given for increasing the efficiency of the teaching force and the equipment of the agricultural colleges, through better organization, more definite planning of work, and better utilization of equipment now available. It is believed that with better organization of the teaching force and more definite planning of the work of teachers and students, much time can be saved and more effective practicums can be developed, and that with some planning for the more constant use of equipment more students can be accommodated in the practicums.

But no very marked advance can be made in this direction without the sympathetic and intelligent cooperation of an alert, well-trained teaching force—a teaching force

whose members, individually and collectively, believe in dignifying farm practice with a definite and important place in the education of young men for agricultural pursuits.

In elementary schools giving instruction in agriculture there is also, as in the secondary schools, a definite movement away from formal classroom work based largely upon the textbook, toward a practical industrial course in which children actually perform some of the operations of the farm. In the 17 States where agriculture is required by State law to be taught in all elementary schools, most of the work still consists of a study of what might be called agricultural nature study and of the study of elementary textbooks about agriculture and agricultural products. The development of the "agricultural club work," already mentioned above, has done and is doing much to change the method of teaching agriculture in the elementary schools, and as the work develops further and the proper relationship between it and the school is found, its influence will be much greater than at present. It is already an extensive movement. Information concerning its extent is contained later in this chapter. It has not yet reached its maximum influence on the instruction given in the school because, having been organized largely by other forces than the school authorities, it is carried on for the most part as a thing outside of and distinct from the regular work of the school. Its success, however, as a method of teaching is so evident that club work is now coming to be made more definitely than ever before a part of the school work. Where formerly teachers aided in the organization of the clubs and then permitted the work of the clubs to be done outside of school, as a thing distinct from the school work and under the supervision of other authority, they are now organizing the clubs and making the club work take the place of required agricultural school work. They are also using it as much as possible as a basis for composition, essay, and arithmetic practice.

Another indication of the change in method of teaching agriculture in elementary schools is the growth of the movement for cultivating school grounds in a manner similar to that reported by the Bureau of Education in bulletin 1912, No. 28, "Cultivating School Grounds in Wake County, N. C." In brief, this plan includes the cultivation of land adjacent to the school building by the patrons of the school, together with the school children. The movement started as a scheme for raising additional funds for the maintenance of the school. The greater possibilities, however, were immediately seen, and as the movement has grown the motives have increased from mere desire to raise funds for school purposes to include others such as (1) the socializing effect of the community meetings at the schoolhouse to cultivate the crop, (2) the possibilities of demonstrating better methods of cultivation, (3) the increased dignity of agri-

culture in the eyes of the children that has come from the cultivation of the soil by a community gathering, (4) and the direct instruction in agriculture given by the school, with the school garden as an immediate demonstration. School gardening, as the term is usually understood, has not been altogether a success in rural districts. When districts can not afford to hire a teacher during the summer months, difficulty is experienced in taking care of the garden during the summer vacation. Under this other plan the garden, being a community garden rather than a school garden, is taken care of during the summer months and the children are there with their parents to assist in the work. The result has been a very successful teaching of agriculture.

This plan was introduced in Wake County, N. C., six years ago. It has now spread to many other sections and from reports received by the bureau is followed in probably 40 different counties in many different States. In northern Alabama direct assistance in this work has been given by the agricultural and mechanical college for negroes located near the city of Huntsville. The agricultural department of this institution has selected 8 or 10 rural schools for negroes in the county in which the institution is located and has made a demonstration farm out of the school grounds at each school where the school land is large enough for such purposes or has secured adjacent land for the purpose. The word "farm" can hardly be applied to these demonstrations. Each consisted of the cultivation of a few of the more staple crops on from 1 to 10 acres of land by the school patrons and children under the direction of a representative of the institution.

AGRICULTURAL EDUCATION AT MEETINGS OF THE YEAR.

THE ASSOCIATION OF AMERICAN AGRICULTURAL COLLEGES AND EXPERIMENT STATIONS.

The twenty-seventh and twenty-eighth annual meetings were both held at Washington, D. C., in November, 1913, and November, 1914, respectively. The main topic of discussion at both was "Agricultural extension teaching." In the 1914 meetings the States' relation committee of the United States Department of Agriculture, in whose hands rests the management of the extension work of the department, in cooperation with the State colleges of agriculture, as provided by the Smith-Lever Act of Congress, explained the general plans under which such work will be conducted. The new problems of administration raised by this Federal appropriation and the cooperative extension work were discussed in the college section by the committee on policy and organization.

Meeting with the agricultural-college association annually are many other agricultural associations. The week of the association

meeting has become the gathering time for nearly all national organizations of persons whose work is connected with agricultural education or the advancement of agricultural sciences. The principal organizations in this group are the American Association for the Advancement of Agricultural Teaching, the American Association of Farmers' Institute Workers, American Farm Management Association, the American Society of Agronomy, the Association of Official Seed Analysts, and the Association of American Agricultural Chemists.

THE SUMMER GRADUATE SCHOOL OF AGRICULTURE.

The sixth session of the Graduate School of Agriculture was held at the University of Missouri, June 29 to July 24, 1914, under the auspices of the Association of American Agricultural Colleges and Experiment Stations.

There were 29 instructors, besides special speakers, and the enrollment of students reached 150, representing about 30 States and Territories, besides Porto Rico, Canada, and Scotland.

The central feature of the 1914 session was a course in genetics, comprising 40 lectures and 12 seminars. This course was given in response to a demand that more instruction in at least one subject should be given at the graduate school.

As a whole the work of the 1914 session was more generally of a kind and grade appropriate to such a school, and the students were more generally such as could profit by graduate instruction.

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF AGRICULTURAL TEACHING.

This association continued to follow its previous custom of meeting at the same time and place as the Association of Agricultural Colleges; in fact, many of its most active members are professors of agricultural education in the State agricultural colleges. For these it is a decided advantage that the two meetings be held together. The question of affiliating this organization with the Association of Agricultural Colleges and making it a section of the larger association has been raised. The plan seems to meet the approval of many members of the Association for the Advancement of Agricultural Teaching, not only those whose work is in agricultural colleges, but others, including the State supervisors of agricultural education, employed by State departments of education, and agriculture teachers in secondary schools. The meetings of the association since its organization, in 1911, have been given largely to the discussion of two subjects—the preparation of teachers of agriculture for secondary schools and methods of teaching agriculture in such schools. Its investigation on the use of land has been already mentioned. The 1914 meeting consisted principally of a discussion of this investigation, together with further discussion of college

courses in agricultural education. The papers presented at the meetings in 1911, 1912, and 1913 have been published by the Bureau of Education in three separate bulletins:

Bulletin 1912, No. 6, Agricultural Education in Secondary Schools.
Bulletin 1913, No. 14, Agricultural Instruction in Secondary Schools.
Bulletin 1914, No. 27, Agricultural Teaching.

The proceedings for the 1914 meeting have not yet been published.

NATIONAL EDUCATION ASSOCIATION.

Considerable discussion on agricultural education has taken place during the past meetings of the National Education Association, particularly in the Department of Rural and Agricultural Education. Meeting with the Department of Superintendence annually for several years has been the National Committee on Agricultural Education. A movement has been started to unite these two bodies into one. In the 1914 meetings the principal topic of discussion was teaching agriculture in secondary schools through the home project.

AMERICAN VETERINARY MEDICAL ASSOCIATION.

The fiftieth annual meeting of the American Veterinary Medical Association, which was held at the Hotel Astor, New York City, from September 1 to 5, marks an epoch in the history of veterinary medicine, a profession that is intimately interwoven with the art of agriculture. It is now more than 50 years since, on June 9, 1863, the first meeting was held at the Astor House by a small group of veterinarians for the purpose of forming the United States Veterinary Medical Association. Of this group of men the only one alive to-day is Dr. Alexander Liautard, now of Paris, one of the founders of the New York-American Veterinary College.

Some of the notable advances that the veterinary profession has achieved during the past half century were briefly referred to by Dr. John R. Mohler, of the United States Department of Agriculture, in his presidential address to the association. He said:

> The acquirement of knowledge in the domain of animal diseases during the last five decades has been constant and amazing and compares favorably with the progress in other branches of science which has attracted the admiration of the world. * * * What a revolution in veterinary thought and practice has resulted can be appreciated only by comparing the textbooks of 25 years ago with those of the present day.

In the opinion of Dr. Mohler—

> No one factor has done more to elevate the standard of veterinary institutions in America than the investigation of their curricula and equipment by the Bureau of Animal Industry, in conjunction with the United States Civil Service Commission. While the primary object of such supervision was to make it possible for the Government to obtain men better educated and better qualified for its veterinary work, it nevertheless succeeded in raising the standard of veterinary education in the United States and enabled the students to obtain greater and better facilities for study.

The agricultural colleges and experiment stations have also been important factors in veterinary progress in this country. As early as 1868 courses were being given in the agricultural departments of the Illinois Industrial (now the State) University, and of Cornell University. A year later the Massachusetts Agricultural College included the subject in its curriculum. By 1877 veterinary science was also being taught in the agricultural colleges of Ohio, Maryland, Pennsylvania, New Hampshire, Iowa, and Vermont, as well as in the Bussey Institution of Harvard University. This list of institutions has gradually been lengthened, and to-day 8 agricultural colleges are giving full courses in veterinary medicine leading to a degree, while 44 are offering lectures or other work, either as an integral part of their agricultural instruction or as a preparatory course for the further study of the subject.

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

At a meeting of the council of the American Association for the Advancement of Science, Dr. E. W. Allen, of the United States Office of Experiment Stations, was elected secretary of the new section M, on agriculture. The selection of a sectional committee for the section and also its representative on the council was intrusted to the vice president, Dr. L. H. Bailey, and the secretary of the section.

SOCIETY FOR THE PROMOTION OF AGRICULTURAL SCIENCE.

The thirty-fourth annual meeting of the society was held at Washington, November 11, 1913. Two joint sessions were held with the American Society of Agronomy, which met at the same time.

The address of the president, Dean E. Davenport, was on the subsubject, "How will Extension Work React upon Research?" The effect of the present popularity of demonstration and extension work on the popular mind, on appropriating bodies, on students, and on the standards of work was traced. This effect was felt to be such that—

> We may well feel solicitous for both the college and the station, especially for the latter, which can not hope to compete either in spectacular show or in immediate promise with its younger but robustious brother, the extension service.

The responsibility was placed upon those in authority to "insist upon and to maintain at all cost a proper balance between real research and all other agencies for agricultural progress, however attractive, however expedient, however necessary." Agricultural education in Latin America was described by Clinton D. Smith, who recently served as director of the agricultural school at Piracicaba, Brazil. He gave accounts of the various agricultural schools in Brazil, and also in Uruguay, Argentina, Peru, and Chile.

The officers elected for the year were as follows: President, H. J. Waters, of Kansas; secretary-treasurer, Dr. E. W. Allen, Washington, D. C.; executive committee, Dr. H. P. Armsby, Dr. W. H. Jordan, and Dr. H. L. Russell; custodian and assistant custodian, Dr. W. J. Beal and Prof. W. D. Hurd, of Massachusetts.

MASSACHUSETTS FEDERATION FOR RURAL PROGRESS.

This organization was formed at a meeting held at the Massachusetts Agricultural College October 21, 1913, under the auspices of the college, the State board of education, the State grange, and the Western Massachusetts Chamber of Commerce. About 15 organizations participated in the meeting. The constitution, as adopted, provides for a council, an executive committee, and three commissions dealing, respectively, with farm improvement, marketing and exchange, and community life. President Butterfield, of the college, was chosen president; Dr. David Snedden, State commissioner of education, vice president; and E. L. Morgan, community field agent of the college, secretary-treasurer.

AGRICULTURAL EDUCATION IN OTHER COUNTRIES.

LATIN AMERICA.

The agricultural normal school at Santiago, Chile, is being reorganized and its activities devoted entirely to agricultural subjects under rules and regulations to be issued by executive authority. The agricultural schools at Chillan, Concepcion, and Cauquenes are also to be reorganized, and $10,950 has been appropriated for each of two agricultural schools to be established at Aconcagua and Rancagua, respectively. An agricultural congress, an exposition of agricultural machinery, and a stock show were held in Concepcion during the latter part of October, 1913.

The Government of Colombia has accepted eight scholarships, including four in the school of agriculture and one in the veterinary school of the University of Santiago, offered to Colombian students by the Government of Chile.

The school of agriculture of the Republic of Guatemala at Guatemala City, which was founded January 13, 1913, has admitted to its first year's class the first-year pupils of the Central Normal School for Males, thereby largely increasing the number of students taking the agricultural course.

The Haitian Government has made an appropriation for the establishment of an agricultural school, and negotiations are under way to engage professors from abroad to give instruction in the latest scientific agricultural methods. In the meantime the secretary of agriculture proposes the organization of a traveling school of agriculture, and

that, furthermore, instructors be sent from place to place in the coffee-producing regions to teach the producers how to improve their plantations, etc. He also proposes the establishment of experimental agricultural fields in the coffee and cacao producing regions to teach the farmers the rudiments of scientific farming. A bill was passed in July, 1913, establishing an agricultural school in the Department of the West.

Rafael Bustillo has been appointed assistant director of the school for the cultivation of tobacco at Danli, Honduras. This school has a considerable number of students, and under its influence the cultivation of tobacco in the Republic has greatly increased during the last few years.

Dr. A. Backhaus has submitted a plan to the department of agriculture of Paraguay for the founding of an agronomic institute in the country. An experiment station has been established by the Government of Peru in the region of the Madre de Dios River, with the special object of encouraging the scientific cultivation of rubber-producing trees indigenous to that section, and for the purpose of introducing and acclimatizing useful food-producing plants. Preparations are being made for an international exposition of agriculture, stock raising, and industry, to be held in the city of San Salvador in August.

BRITISH ISLES.

As a result of its inquiry into the methods that local education authorities in Great Britain adopt to promote efficiency in the performance of manual processes, e. g., plowing, hedging, ditching, sheep shearing, milking, and basket making, the Rural Education Conference recommends that (1) instruction in certain manual processes should be provided for the older boys and girls attending elementary schools in rural districts, and that (2) local education authorities and managers of rural elementary schools should regulate the holidays so as to leave the boys free to work on the land at a time when their work is most useful.

For boys and men employed upon the land it is recommended that classes in manual processes should be conducted to assist rather than formally instruct those who attend, and that the interest and sympathy of the farmers in this work should be secured. Such assistance should be more generally provided by local education authorities throughout England and Wales, and the courses at present provided in most counties should be made more thorough. Local authorities should offer certificates to be competed for by the students at the end of the class; and local societies that organize classes and competitions in manual processes should be encouraged and assisted by local education authorities, although expenditure by local education authorities on money prizes should be regulated.

The methods employed by local education authorities for giving instruction in manual processes at farm schools or agricultural colleges, by itinerant instructors, and through local agricultural societies were outlined, including the duration and subjects of instruction, competitions, and cost of instruction. In half the counties of England and Wales no provision is made by the local education authorities for instructing agricultural laborers in manual processes.

The new laboratory for research work in agricultural entomology was opened November 13, 1913, by Sir Sidney Olivier, permanent secretary of the board of agriculture and fisheries. A laboratory room 58 by 28 feet is available, together with a smaller laboratory, an experimental field with greenhouses, etc. Dr. A. D. Imms, formerly forest entomologist of the Government of India, has been appointed first reader in agricultural entomology and will conduct researches and supervise the work of research students.

CANADA.

At the request of the minister of education Queen's University, Kingston, has established the new degree of bachelor of science in agriculture. The course covers four years, of which the first two are to be spent in residence at the university and the remaining two at the Ontario Agricultural College. In order to increase their knowledge of practical agriculture, candidates for the degree will be expected to work during the summer vacation between the third and fourth years of the course, either on the farm of the agricultural college or on some other approved farm. At the end of each of the two years taken at the agricultural college the Government will give a scholarship of $100 to each candidate recommended by the president of the college.

The department of education will accept the degree of B. S. in Agriculture as the academic qualification for a specialist's certificate in both science and agriculture and for a public school inspector's certificate. The former certificate will be granted after a year's professional training at the faculty of education of either Queen's University or the University of Toronto. The holder will be regarded as qualified to teach both science and agriculture in a high school, continuation school, or collegiate institute; and each county representative, in addition to his usual duties, will conduct, under the school board concerned, classes for farmers and farmers' sons throughout the county.

It is announced that as soon as the new class of specialists is available the Government will also make liberal grants for maintenance and increase of teachers' salaries for the encouragement of secondary-school classes in agriculture. The payments to the teachers, how-

ever, will obligate the teacher to teach at least two years in the Province of Ontario.

The new buildings of the Manitoba Agricultural College, located on a site of 1,100 acres just south of Winnipeg, were near enough to completion to permit of their use in the fall of 1913. The group as a whole will cost $5,000,000 and will require from two to three years additional for its completion.

The new college of agriculture of Saskatchewan University is offering a four-year course leading to the degree of B. S. in Agriculture, and a three-year course leading to the certificate of associate in agriculture. The first class in agriculture, consisting of 65 students, entered last fall, nearly all of whom matriculated in the three-year course.

The Province of Alberta is undertaking a new form of instruction in Canada in opening three schools of agriculture, viz, at Claresholm, with W. J. Stephens principal, to cover southern Alberta and deal with education best suited under dry-farming and irrigation conditions; at Olds, with W. J. Elliott principal, which will look after the interests of central Alberta, where the soil is a heavy black loam; and at Vermillion, with A. E. Howes principal, to deal with northern conditions. Tuition in these schools will be free, and the two-year course will approximate very closely to the first two years of the regular agricultural college course for the degree of B. S. in Agriculture. Domestic science courses will also be offered. In addition to the principal there will be at least two professors at each school, whose time during the summer will be devoted to extension work and getting in touch with the farm homes. The schools will be operated under a board composed of a body of practical farmers.

An act has been passed providing for the establishment of agricultural schools at such places in the Province of New Brunswick as may be decided upon by the lieutenant governor in council, who is also authorized to purchase such lands and erect such buildings as he may deem necessary for the purpose. The curriculum of the schools will include agriculture, horticulture, forestry, care and management of farm animals, butter and cheese making, manual training, and kindred subjects, as well as the elements of sciences bearing on these subjects. The schools will be largely under the management of the New Brunswick department of agriculture, which will regulate the conditions of admission, fix tuition fees, arrange courses of study, supervise the conduct and work of students, grant certificates of proficiency or other awards, etc. The lieutenant governor will appoint the staffs of the schools and authorize the expenditures to be made by the department of agriculture for these schools.

The Province of Prince Edward Island has provided a summer school of agriculture and nature study for the teachers in its rural

schools. The courses are given in the building of the Prince of Wales College at Charlottetown, and are of two weeks' duration. An attendance of over 250 was enrolled in 1913, out of a total of 590 teachers on the island. The traveling expenses and a portion of the living expenses of these students were borne by the Province.

The plan under which the department of education of the Province of Ontario is cooperating with the department of agriculture to encourage instruction in agriculture and horticulture in continuation and high schools and in collegiate institutes has been worked out in detail. The instruction will be optional, under the supervision of the director of agricultural education, and will be given by teachers of science holding an intermediate certificate in agriculture and horticulture granted upon the satisfactory completion of two 5-week summer sessions at the Ontario Agricultural College, or by the district agricultural representatives. A board of trustees that provides and maintains satisfactorily a course in agriculture and horticulture in the lower school of the high-school course extending over two years, including pupils' home projects under a certificated teacher, will receive $100 and the teacher $75. To the school board which, in addition to the home projects, provides and maintains experimental and demonstration plats at or in connection with the school for the practical instruction of the pupils, an additional grant not to exceed $25 will be paid, and to the teacher an additional annual grant of $25. When the work is conducted by a county agricultural representative, he will be paid the grants specified for the teacher. The two-year middle school course may be taken only in schools where the lower school course is being taken. The same grants will be paid and the same requirements as regards instruction and examinations made as in the lower school course.

At least two hours a week during each of the two years of both lower and middle courses are to be devoted to home projects.

The department of education is also cooperating with the department of agriculture of the Province in introducing elementary agriculture and horticulture into the rural and village schools. The instruction is optional, under the general supervision of the director of elementary agricultural education, and given by teachers either not especially certificated or holding special certificates in elementary agriculture and horticulture. These may be obtained on the completion of (1) a 10-weeks spring course at the Ontario Agricultural College, (2) two summer sessions at the college and a directed winter's reading course, and (3) a course in agriculture at a high school followed by a further course at the normal school and one summer session at the college. Besides the classroom instruction there will be practical work carried out either as a home gardening plan or as a school gardening plan. A rural or village school board that provides and

maintains satisfactorily throughout the year a course in elementary agriculture and horticulture with supervised home gardens or projects and an uncertificated teacher may receive not to exceed $8 for the trustees and $15 for the teacher; with a certificated teacher not to exceed $20 for the trustees and $38 for the teacher. In addition, where a well-conducted school farm or garden of six square rods is maintained the grant may not exceed, with an uncertificated teacher, $12 to the trustees and $23 to the teacher; with a certificated teacher, $30 to the trustees and $57 to the teacher.

FRANCE.

The first horticultural school for women in France, a higher school of horticulture for young women, was opened in the latter part of 1913 at Brie-Comte-Robert, near Paris, under the auspices of the Union for the Agricultural and Horticultural Instruction of Women.

The minister of agriculture of France issued a circular addressed to the directors of the departmental agricultural services authorizing them to organize farm women's clubs in as many communities as possible, for the promotion and dissemination of instruction in home economics and agriculture. These clubs are to supplement the instruction given in the three-month courses now operating in France and in the post-scholastic home economics schools to aid former students of these schools to perfect their studies and to give women in general an opportunity to procure a professional domestic knowledge.

The clubs of each department are to be federated, and these departmental federations combined into a national federation of farm women's clubs, to be administered by a central committee at the seat of the ministry of agriculture.

GERMANY.

A private experiment was begun in April, 1913, at the A. and F. Simon institution at Hannover, near Peine, in the training of teachers in gardening and manual training. The instruction is given in two half-year courses, comprising in the summer practical gardening 20 hours, woodworking 4, paste work 3, drawing 3, horticulture 4, chemistry 2, physics 2, political economy 2, and pedagogics 4 hours; and in the winter, wood and metal work 24 hours, paste work 4, gardening 4, drawing 4, chemistry 2, physics 2, and methods 4 hours. The director is assisted by an experienced horticulturist and manual-training instructor. The school has an area of 50 acres, 44 of which are planted to fruits and vegetables grown for profit.

It is concluded after five years of agricultural instruction in the German Army that, while opinions as to the value and results of this instruction are not yet everywhere crystallized, the efforts that have been put forth have proved correspondingly beneficial.

A movement on foot in Germany looks to the reorganization of its higher horticultural institutions at Dahlem, Geisenheim, and Proskau, whereby each institution would specialize in one of the principal branches of horticulture, instead of competing with each other in covering the whole field of horticulture as at present. Each institution would still provide a preliminary course in the fundamentals of horticulture, so that students could readily change from one institution to another for specialization.

INDIA AND CEYLON.

A new agricultural school was opened in Bangalore, Mysore, in 1913 to turn out "efficient and intelligent agriculturists." A two-year course is provided the first year, including practical and theoretical agriculture, elementary and soil physics, elementary chemistry, biology, anatomy and physiology, and farm mechanics. These subjects are continued during the second year, with additional work in mycology, agricultural engineering, veterinary science, and entomology.

Plans are being made for the establishment of a tropical agricultural college on the grounds of the Gangaroowa Experimental Station, where a tract of 400 acres is available. It is estimated that the main college building and equipment and quarters for the staff and students will cost from $97,300 to $129,770. It is expected that the staff of the Ceylon department of agriculture will be available for a portion of the instruction work, but that a botanist will also be needed.

RUSSIA.

The 1914 budget contains an estimated expenditure for agricultural purposes of £16,638,600, an increase of £2,335,500 over 1913. The largest item is that of £5,300,000 for land organization and agricultural industries, which includes the maintenance of experimental and demonstration agencies, general measures for the development and improvement of various agricultural industries, including forestry, and assistance to peasants in districts under land organization. An allotment of £1,178,700 is estimated for drainage, irrigation, and peat cutting. The allotments for agricultural education and horse breeding are largely increased.

EDUCATIONAL WORK OF THE DEPARTMENT OF AGRICULTURE.

In his message to the Sixty-third Congress the President of the United States said:

> It has, singularly enough, come to pass that we have allowed the industry of our farms to lag behind the other activities of the country in its development. I need not stop to tell you how fundamental to the life of the Nation is the production of its food. Our thoughts may ordinarily be concentrated upon the cities and the hives of industry,

upon the cries of the crowded market place, and the clangor of the factory, but it is from the quiet interspaces of the open valleys and the free hillsides that we draw the sources of life and of prosperity, from the farm and the ranch, from the forest and the mine. Without these every street would be silent, every office deserted, every factory fallen into disrepair. And yet the farmer does not stand upon the same footing with the forester and the miner in the market of credit. He is the servant of the seasons. Nature determines how long he must wait for his crops, and will not be hurried in her processes. He may give his note, but the season of its maturity depends upon the season when his crop matures and lies at the gates of the market where his products are sold. And the security he gives is of a character not known in the broker's office or as familiarly as it might be on the counter of the banker.

The Agricultural Department of the Government is seeking to assist as never before to make farming an efficient business, of wide cooperative effort, in quick touch with the markets for foodstuffs. The farmers and the Government will henceforth work together as real partners in this field, where we now begin to see our way very clearly and where many intelligent plans are already being put into execution. The Treasury of the United States has, by a timely and well-considered distribution of its deposits, facilitated the moving of the crops in the present season and prevented the scarcity of available funds too often experienced at such times. But we must not allow ourselves to depend upon extraordinary expedients. We must add the means by which the farmer may make his credit constantly and easily available, and command when he will the capital by which to support and expand his business. We lag behind many other great countries of the modern world in attempting to do this. Systems of rural credit have been studied and developed on the other side of the water while we left our farmers to shift for themselves in the ordinary money market. You have but to look about you in any rural district to see the result, the handicap and embarrassment which have been put upon those who produce our food.

The Chief of the Bureau of Plant Industry states, concerning the results of demonstration work in boys' and girls' clubs in the North, that the boys' and girls' club work of the Northern, Central, and Western States has grown from no enrollment in 1912 to a total enrollment of 110,077 at the present time. Enrollments for the present fiscal year are in the following club projects: Corn, market garden, garden and canning, potato, alfalfa, poultry, apple, pig, milk testing and milk record keeping, and other miscellaneous clubs which meet the particular need of the section in which they are organized.

The cooperative relations existing between the State colleges of agriculture and the other institutions, associations, and individuals of the State and the United States Department of Agriculture have been very greatly strengthened during the past year. In every instance the State institutions are urging the department to contribute more to the work, not only from the standpoint of financial assistance, but are asking for more Farmers' Bulletins, follow-up instructions, and field leadership.

According to the reports of State leaders in charge of club work, collaborators, etc., $53,850 has been spent during the fiscal year for prizes, premiums, free trips, etc., for the direct encouragement of the boys' and girls' club work in the 33 Northern, Central, and Western States. Most of this has been spent defraying the expenses of 1,156

champions from counties to attend short courses at the college of agriculture, parties to attend the State fairs, other schools, and to defray the expenses of the champions from 15 States to Washington, D. C., in December, 1913. Very little of this money has been given as cash premiums, most of it being in the forms above mentioned or in the form of farm machinery, kitchen equipment, clothing, pure-bred stock, hogs, poultry, and in some instances a clear title to a piece of land. The fact that the club work is conducted on an economic and practical basis makes every club member a prize winner, for he is able to make a net profit from his club plat.

Among the benefits to the State derived from the boys' and girls' club movement, the following are mentioned by one of the State leaders: (1) Promotes sound farming through right beginning, (2) prepares for our organized modern social life through early self-government, (3) establishes the financial independence of the child through his own activity, (4) frequently interests the father in modern methods through the child, and (5) vitalizes school agriculture and all the teaching of the rural school.

In the canning clubs of the Southern States there were 33,060 girls enrolled in 1913. The 4,202 girls who sent in reports put up 1,032,115 cans of tomatoes and 522,147 cans of other products, worth $180,420.05.

The business men of Louisville, Ky., offered a trophy to be awarded at the Conference for Education in the South for the best record of canning club work done by a team of 10 girls from any Southern State. The trophy consisted of a silver medallion bust of the late Dr. Seaman A. Knapp, founder of the farm demonstration work, and 10 silver pendants, each containing a smaller reproduction of the medallion, to be presented to each of the girls represented in the prize winning. Exhibits and records were shown from each of the 15 Southern States, and all of them were excellent and attractive; they were inspected by thousands of visitors.

The 10 canning-club girls of Mississippi who won the girls' trophy for their State produced 27,850 pounds of tomatoes from their tenth-acre gardens. From these plats these 10 girls canned 29,379 No. 2 cans of vegetables. The value of these products, including the vegetables used at home, was $1,179.92, and the total profit $868.66. The average cost of gardening and canning per 10 acres was $29.93.

The best individual record in tomato growing in the United States in 1913 was made by Miss Clyde Sullivan, a 14-year-old canning-club member of Ousley, Ga., who produced 5,354 pounds of tomatoes on one-tenth acre, and canned 2,254 No. 2 cans, 212 No. 3 cans, and made 60 pints of catsup. The entire receipts from this one-tenth acre were $229.26, and the profit $132.39. The best county record is that of

Etowah County, Ala., where 104 girls reported more than 30,000 No. 3 cans of tomatoes, having a value of $3,600.

In 15 Southern States last year 91,196 boys were members of corn clubs. Each one planted and cultivated 1 acre; more than 400 of these boys produced over 100 bushels each. Walker Lee Dunson, of Alabama, grew 232.7 bushels, at a cost of 19.9 cents a bushel. This is the best record ever made in corn clubs, and one of the best in the history of corn production.

The influence of the training received in boys' corn clubs is frequently shown in the future history of the boys. In one agricultural college alone there were 52 corn-club boys in 1913. Many girls also, becoming interested in canning, have taken the domestic science course in the normal and industrial colleges.

The direct work of the Forest Service with schools was confined to supplying, on request, illustrative material, publications, and information through correspondence. Nearly 8,000 lantern slides, in 142 sets, were loaned. Most of these sets were accompanied by lecture outlines. Photographic prints were supplied to 68 persons for use in schools, and photograph exhibits were loaned to 54 schools and libraries.

In continuance of the previous policy of the Office of Public Roads, nine young men were appointed to the position of civil engineer student during the year. Appointments to this position are made from an eligible list established through examination by the Civil Service Commission. The examination is open only to graduates of the engineering institutions of the country, and it is intended that the position shall provide for a limited number of such graduates, and particularly for a postgraduate course in highway engineering. During the year 331 lectures and addresses were delivered in 46 States by 35 of the representatives of the office. All these lectures were of a practical or scientific character, and many of them were illustrated with lantern slides. They were given mostly at farmers' meetings and rural conventions. Several papers were read at colleges and universities and before scientific organizations and societies.

The Chief of the Bureau of Animal Industry reports that the pig-club work taken up in 1912, in cooperation with the Louisiana State University, has been continued. Similar work was begun in Alabama and Georgia in 1913, in cooperation with the State agricultural colleges. This work has been growing rapidly. During the summer of 1913, in Louisiana, 1,500 boys were enrolled and in Alabama about 500. The Georgia work was not begun until the fall of 1913. The enrollment of pig-club members for the year 1914 closed May 1. At that time there were in Louisiana 2,500 members, in Alabama 1,800, and in Georgia 980.

Ham and bacon clubs were started in Georgia, among the boys and girls, and liberal prizes have been offered at the State fair for the exhibits of ham, bacon, lard, etc., by members of the club.

Creditable exhibits were made in 1913 at the fair of nearly every county in which pig clubs were organized. In some counties where fairs were not held the boys held exhibits of their own. At the Louisiana State Fair in 1913 there was an exhibit of 200 hogs belonging to members of the pig club, and many of these pigs won prizes in open classes where competition was keen. One parish club in Louisiana sent an entire carload of hogs to the State fair. Prizes offered for the exhibits of hogs owned by pig-club boys at the fairs during the 1914 season are very liberal, and each fair will probably have full classes of hogs belonging to pig-club members.

No better evidence is needed of the place which agricultural education has attained in the public mind than the passage by Congress of the Smith-Lever Act, signed by the President on May 8, 1914. It will be recognized as a highly significant step in the advancement of the great national industry through the aid of the General Government, rounding out and completing the movement inaugurated in 1862 with the passage of the land-grant act for the establishment of agricultural colleges. This new extension measure is the sixth act which recognizes agriculture as an appropriate subject for promotion by the Federal Government, and the fifth to provide permanent grants from the Public Treasury to be used through the system of State institutions established by the Morrill land grant of 1862.

The act provides that, "in order to aid in diffusing among the people of the United States useful and practical information on subjects relating to agriculture and home economics and to encourage the application of the same," there may be inaugurated in connection with the colleges receiving Federal aid under the Morrill Acts agricultural extension work to be carried on in cooperation with the Department of Agriculture. This work is to consist of—

> the giving of instruction and practical demonstrations in agriculture and home economics to persons not attending or resident in said colleges in the several communities, and imparting to such persons information on said subjects through field demonstrations, publications, and otherwise.

For the maintenance of the work there is permanently appropriated $480,000 per annum, or $10,000 for each State which accepts the provisions of the act. In addition, there is appropriated $600,000 for the second fiscal year of its operation, and for each year thereafter for seven years $500,000 additional, until a total of $4,100,000 is reached, which with the $480,000 makes a total of $4,580,000, and continues as a permanent annual appropriation. Unlike the initial appropriation of $480,000, these additional appropriations are to be allotted annually to each State by the Secretary of Agriculture in the propor-

tion that its rural population bears to the total rural population of the United States. These appropriations are also conditional upon the provision by the States of an equal sum for maintenance of the work, supplied by direct appropriation or by contributions from the county, college, or local authorities, or from individuals within the State. No part of the appropriation can be used in the purchase, erection, or repair of buildings, the purchase or rental of land, college course teaching, promoting agricultural trains, or other purposes not specifically authorized, and not more than 5 per cent for the printing and distribution of publications.

The funds carried in the Smith-Lever Act are not appropriated directly to the Department of Agriculture, as its funds to dispense among the States, and they are not given to the States unconditionally. They are designed "to provide for cooperative agricultural extension work between the agricultural colleges in the several States * * * and the United States Department of Agriculture." The department receives no portion of the funds appropriated under the extension act, but these are paid semiannually to the State authorities on the warrant of the Secretary of Agriculture, who is charged with the proper administration of the law.

Heretofore the department's demonstration work has been conducted in part independently of the agricultural colleges. No uniform plan has been followed, and the varied activities in extension lines have not been definitely brought together and administered through one departmental agency. Such an administrative agency has now been established for the present through a States-relations committee, and to it will also be assigned the general administration and supervision of the new extension fund under the Smith-Lever Act. There will thus be for the first time a single central agency in the department that will deal with the extension work of the department and with the extension divisions of the several colleges.

EDUCATIONAL WORK OF THE OFFICE OF EXPERIMENT STATIONS.

During the year 1913–14 the Office of Experiment Stations has continued to follow and record the progress of agricultural education throughout the world. Abstracts of important textbooks, manuals, and other publications relating to agricultural education, together with notes on the agricultural colleges and schools in this and other countries were published monthly in the Experiment Station Record.

The office published two Farmers' Bulletins, one dealing with the "Collection and Preservation of Plant Material for Use in the Study of Agriculture," the other with the "Collection and Preservation of Insects and Other Material for Use in the Study of Agriculture." It prepared and published the annual statistics and organization list of

the agricultural colleges and experiment stations; it prepared for publication a "List of Institutions in the United States Giving Instruction in Agriculture," "School Lessons on Corn," "Laboratory Exercises in Farm Mechanics for Agricultural High Schools," "First Lessons in Crop Production," and "Directions for Correlating Agriculture with the Public School Subjects in the Southern States." In addition to the above editorial work, considerable progress was made in the preparation of literature to be used by teachers giving instruction in agriculture in the rural elementary schools. These publications are cooperative projects and are chiefly based on the publications of the Department of Agriculture and the State experiment stations.

A definite beginning was made on the preparation of illustrative material for use in agricultural schools, including charts, photographs, lantern slides, moving-picture films, etc. Exhibits of such material were prepared for use at teachers' institutes and other educational meetings.

Special sets of lantern slides with lecture outlines accompanying them have been prepared for school use. These slides cover the common types and breeds of farm animals.

One of the important problems which has recently developed in agricultural education is the question of the use of land in the teaching of agriculture in secondary schools. The office therefore undertook during the year to study this special problem in agricultural education in cooperation with the American Association for the Advancement of Agricultural Teaching. The problem in agricultural education studied in cooperation with the Association of American Agricultural Colleges and Experiment Stations was advanced farm practice as insisted upon for graduation by agricultural colleges.

A card directory of American teachers and investigators in agriculture has been revised and now contains about 2,600 names. This directory is maintained for the convenience of agricultural colleges and other institutions seeking trained teachers and investigators.

CHAPTER XIII.

EDUCATION FOR THE HOME.

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Contents.—I. Introduction.—II. Status and program of education for the home: A. Fundamental principles. B. Kindergartens and kitchen gardens. C. The elementary school. D. The high school. E. Rural schools. F. Teaching household arts without a special teacher. G. Vocational education laws and the home. H. Aid from the State government in the teaching of home making. I. Standards as to certification of teachers of household arts. J. Training of teachers of home making. K. Continuation instruction in home making. L. State schools of home making. M. Special schools of home making. N. The technical institutes and education for the home. O. Colleges and universities. P. Popular education for home betterment.—III. Local progress in education for the home: A. Progress in elementary schools. B. Progress in high schools. C. Progress in practical work. D. Progress in vocational classes. E. Progress in normal schools. F. Progress in the colleges.

I. INTRODUCTION.

The superintendent of public instruction in one of the States in which the teaching of home making in public schools is compulsory writes that—

> The introduction of domestic science into the course of study has led to new interest in domestic pursuits, has increased the efficiency of young housewives, and has led to improvement in the general health.

These, at any rate, are the results now sought in every State of the country through the program of education and of popular efforts for home betterment. It is not that our people feel that the home is tottering and needs support, but that the gospel of education for service, as the national movement for vocational training might be called, includes the home-making vocation as an object equally worthy of educational attention with agriculture, industry, and commerce.

This education for the home has already made a place for itself in over 250 American colleges and universities, 159 normal schools, and 2,500 high schools, and probably as many more elementary school systems. Its educational place is already defined by laws, both permissive and mandatory, regarding teaching for the home; by legal standards as to who may teach; by systems of State and Federal aid to local schools; and by a growing educational and scientific literature, based upon laboratory and field studies of scientific workers now available for the guidance of those who teach.

Significant, too, is the great popular movement running parallel to this educational one, which attempts to reach the out-of-school

multitudes of home women with a knowledge of better home making. This movement involves many government activities, local, State, and National; it calls upon colleges and universities for extension classes and popular bulletins; it includes numerous social enterprises, the churches, settlements, charity societies, housekeeping centers, welfare societies such as those on infant mortality and housing, women's clubs, and parent-teachers' associations; it expresses itself through a great popular literature of books on the household and household periodicals; and finally, it is now taking the efficient form of continuation schools for home women, organized in connection with the public schools.

It is as though the country with one accord were saying to the housewife and home maker:

> You who serve in this most significant social post, the home, are now to have the best possible preparation, the assistance of science, of schools, and of visiting teachers, that your service to your family and to the State may be the best of which you are capable.

SUBJECT MATTER AND METHOD IN EDUCATION FOR THE HOME.

Home economics has been defined as—

> the study of the economic, sanitary, and æsthetic aspects of food, clothing, and shelter, as connected with their selection, preparation, and use by the family in the home or by other groups of people.[1]

The three divisions of food, clothing, and shelter are fast being supplemented in many schools by a fourth, household management.

There is at present a confusing use of terms to indicate this field of teaching and its subdivisions, such as domestic science, domestic art, domestic economy, household arts. The new vocational education is apparently to use only terms that indicate unequivocally the trade or professional aspects of the situation; the terms home making, housekeeping, and household arts certainly have that connotation. The sub-titles will doubtless be found in the practical working divisions of the household, such as cooking, sewing, cleaning, house care, child care, marketing, account keeping, management, family, social life, etc. These processes, controlled and re-directed for increased efficiency, health, and human happiness, constitute the subject matter to be taught in vocational education for the home, not the detached sciences of nutrition, sanitation, and the like. Training for wage-earning employment in the household has been classified as a part of industrial education; on the other hand, the more academic titles, such as home economics and domestic science, will probably continue in use in academic schools and colleges.

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[1] "Syllabus of Home Economics," American Home Economics Association, Roland Park, Baltimore, Md. 1913, 8°, 69 pp. 50 cents.

The methods of teaching employed in education for the home have from the first emphasized practical work, and since the subject is from one point of view a series of processes, skill is a fundamental aim in teaching. Skill, of course, comes with practice. We are seeing, however, that there is here a body of ideas that have worth in controlling action, in developing appreciations, and thus in determining mental attitudes toward home, house work, and family life.

The balance between theory and practice is important, and in striking it probably the danger is of too few ideas and too much practice. Household arts has a long road of scientific endeavor still ahead, but the accomplishments already made in one field—nutrition—indicate the "subject-matter" possibilities of this profession. Laboratories, practice houses, sewing machines, and laundry tubs are essentials; but they may be deadening obstacles unless the student's mind is awakened to the principles that determine processes.

II. STATUS AND PROGRAM OF EDUCATION FOR THE HOME.

The following facts, presented in summary form, indicate the status and program of education for the home in the United States, both in the schools and as a social movement:

A. FUNDAMENTAL PRINCIPLES.

1. The special aim of education for the home is to provide that every girl or woman who is later to manage a home shall have preparatory training therefor in vocational classes and schools, in the higher elementary schools, in high schools and postgraduate schools, in technical schools and colleges, and especially in continuation classes in rural and urban communities; and that every actual home maker and housekeeper shall have opportunity to improve her practice by similar instruction regarding the problems of food, clothing, shelter, house management, child care, care of the sick, the personal life of the family, the supervision of expenditures, etc.

2. The new vocational education assumes that every individual is to be trained in some specific vocation or means of livelihood; that every woman is to be trained either in the household arts or in some other vocation, in such a way that she may thereby have a means of support; but assumes further that the liberal education of every individual is not to be reduced in amount, but indeed is to be ultimately extended.

3. Girls shall be free to enter any vocation; and training for various vocations, including home making, shall be open to them. Those preparing for other vocations shall have supplementary preparation for home making.

4. Every individual, man or woman, shall be trained in the fundamental arts of living, many of which center in the home, such as

health protection; the principles of the selection and use of food, clothing, and shelter; economic principles—as of the expenditure of money; ethical principles—as those of the filial and conjugal relations, etc. But women who largely control home making and who direct housekeeping shall have special vocational preparation therefor.

These principles find expression at various points in our school system and in social organizations.

B. KINDERGARTENS AND KITCHEN GARDENS.

1. The kindergarten, the first stage in formal education, is to be recognized as having important relation to the home, since it transfers the child from the home to the school; its gifts and occupations are in part related to the home; the inculcation of home ideals is one of its objects; and its mothers' meetings directly affect home betterment.

2. The kitchen garden, an outgrowth of the kindergarten, offers for children from 6 to 12 a program of songs, games, toys, and activities based on the household arts, which has been particularly adapted for social activities in settlements, institutional playrooms, recreation centers, church houses, etc. While furnishing amusement, it instructs regarding household processes.

C. THE ELEMENTARY SCHOOL.

1. Instruction in household arts in the public elementary schools has been authorized by law in many States, and is now required by law in four States: In Oklahoma by the State constitution; in Indiana and Iowa by law; in Washington by the requirement that children finishing the eighth grade shall take an examination in household arts.

2. In the first six grades household arts should be taught to both boys and girls as part of a wide experience in all divisions of the industrial and fine arts—a socializing, informing study, not primarily vocational, but preliminary to all later vocational trainings whether in trade or profession, and aiming at knowledge, acquaintance, and appreciation of the economic and social world.[1]

3. In the seventh and eighth grades: (*a*) For girls who will not go to high school, vocational courses should be offered in home making and in other vocational fields. In all vocational courses liberal training should be continued, and in vocational courses other than home making an element of vocational household arts should be included.[2]

[1] For example see "The Speyer School Curriculum," Teachers College, Columbia University, New York. 1913. pp. 179. 50 cents.

[2] See courses of the Vocational School, Rochester, N. Y., and the industrial courses for upper grades, Chicago, Ill.

(*b*) For girls who go to high school an element of vocational household arts should be given in the seventh and eighth grades.

4. Returns from public elementary schools show that household arts instruction is usually given under the direction, at least, of special teachers. In sewing 62 per cent of the schools reporting had special teachers, and in cooking 96.6 per cent had special teachers; the average (median) salary of the special teacher is $800. Of 390 elementary schools reporting on their household arts instruction, 56 per cent offer both cooking and sewing, 42 per cent offer sewing alone, and 2 per cent offer cooking alone.

Sewing is taught in all grades of the elementary schools, but most commonly in the four upper grades, and somewhat more commonly in the sixth and seventh than in the fifth or eighth grades; cooking is taught especially in the seventh and eighth grades, more in the eighth than in the seventh. Cooking, when taught, is usually allowed 90 minutes a week; sewing, when taught, tends to receive 60 minutes a week in the fourth, fifth, and sixth grades, 75 to 80 minutes in the seventh grade, and 80 minutes in the eighth grade. In 68 schools, the average (mean) total time given the household arts in all grades was 2 per cent of the total time of all school subjects through eight years.

The average school cooking laboratory, whether in elementary or high school, costs $500, and the cost of food supplies for food lessons, as reported by 182 schools, tends to vary from one-half cent to 15 cents (but for half the schools it varies from 2 to 3 cents) per pupil per lesson.

D. THE HIGH SCHOOL.

1. Instruction in home making in high schools has been authorized by law in many States, and in due time will doubtless be required.

2. Household vocational training should be developed to the degree of wage-earning efficiency, even if consciously intended for home use only, and should be offered along with other vocational courses for girls; in such courses liberal training should be included.

3. Required home-making instruction should appear as an element in all high-school courses: (*a*) An economic, social, and health course for boys and girls alike (at least a half-year course); (*b*) an additional technical course in household processes, one-half year as a minimum, required of girls who have not had such training.

4. Additional elective courses in home making should be open to students in college-preparatory, commercial, and other curricula of the high school.

5. Many high schools that do not have special teachers of household arts offer applied-science courses related to the household in their chemistry, physics, and biology departments; e. g., household sanitation, household chemistry, household physics, applied biology (food sanitation), for which a number of excellent texts are now available;

and the economics of the household, for which adequate material is at hand.[1]

6. Private secondary schools for girls have in many instances offered courses in home making, and in three instances, at least, private schools of household arts have been established in this field.

7. Recognition of high-school household science and arts for college admission has been given by 79 colleges and universities; the North-Central Association of Colleges has made a formal statement of credit units in this field. The tendency is toward recognition for a limited amount by all institutions.

8. Returns from public high schools indicate that 1,345 high schools gave instruction in home economics to 66,914 students in 1913. Of this number, 370 were boys who took such courses in 57 different high schools. In 1914 fully 2,500 high schools offered instruction.

In 288 high schools reporting details of their courses in household arts, the average (mean) amount of instruction offered is 315 to 320 hours; one-fifth of the high schools so reporting offer a four-year course in home economics; 13.9 per cent require one or more courses in household arts; in high schools offering only elective courses in household arts the average (mean) percentage of students electing the courses is 33 to 35 per cent; in 68 per cent of the high schools reporting there are no departmental divisions in the teaching of household arts; 59 per cent of the schools reporting state that there is cooperation between other departments (chemistry, physics, art, etc.) and the household arts department.

E. RURAL SCHOOLS.

1. Many district rural schools, without formal household arts lessons, are furnishing instruction in food selection and preparation in connection with a warm dish prepared at noon to supplement the children's cold luncheon.[2]

2. Lessons on food, shelter, clothing, sanitation, expenditures, decoration, child care, etc., may be introduced into the "general lessons" of the district school.

3. The consolidation of district schools makes it possible to provide programs of agricultural and home-economics education in the stronger central schools resulting.

4. The home-making clubs for girls have been successfully affiliated with district schools (for example, those directed by the Kansas State College, Manhattan, Kans.), and similarly the tomato-canning,

[1] For example, food instruction in biology courses, Mr. Rexford, Erasmus Hall High School, Brooklyn, N. Y.; household physics, Berlin, N. H.; applied chemistry, Hollywood High School, Los Angeles, Cal.

[2] The Washington State Normal School requires of every intending rural teacher a brief cookery course on the warm school lunch.

poultry, and other clubs which train in supplementary household vocations for farm girls are coming under the direction of the rural school.

F. TEACHING HOUSEHOLD ARTS WITHOUT A SPECIAL TEACHER.

1. The giving of credit by the school for household work done by the pupil at home, on reports furnished by parents, is a device operating successfully thus far in many communities to increase interest in the household arts. It may be organized, of course, with or without accompanying formal household arts teaching.[1]

2. Women's clubs in many communities have organized the teaching of sewing or cooking outside the school curriculum, either by the members giving lessons or by the clubs providing a teacher, and in this way they have often brought about such teaching within the school.

3. The "Crete plan" of domestic science[2] involves the use of home women as teachers; each of a group agrees to teach a definite food lesson on definite days, perhaps once a month, to groups of high-school girls who come to her home; each teacher becomes responsible for some one lesson, as bread, cake, etc., and the pupils come to observe her demonstration, take notes, and practice in their own homes, reporting results.

G. VOCATIONAL EDUCATION LAWS AND THE HOME.

1. Special legal authorization has now been given in a number of States for courses and schools to train for vocations (Illinois, Indiana, Massachusetts, New York, New Jersey, Pennsylvania, and Wisconsin). Home making is recognized in these laws as a vocation equal in importance to industry, commerce, and agriculture.

2. The unpaid worker in her own family, housewife or other member of the group, is given equal advantages under these laws with the wage-earning domestic employee; and there is recognition of the need that the wage-earning woman in industry and commerce receive training not only for her wage-earning employment, but also, without prejudice, for her "second vocation" of home making.

3. Vocational home-making classes and schools of various types are authorized by these laws: Continuation classes for housewives and home makers, for domestic employees, and for wage-earning women in other fields of employment; prevocational classes in the seventh and eighth grades; general industrial or vocational schools; and schools for home making on the high-school level.

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[1] See Journal of Home Economics, Vol. V, p. 203.

[2] See "Domestic Science—Crete Plan." Department of Public Instruction, Lincoln, Nebr. 1911. 8° 24 pp.

4. Vocational guidance is a part of the program, and as regards home making it must take account of the period when the home-making motive is yet dormant, but when such training, if given, will have later social consequence, as well as take account of the subsequent period when the home-making motive is conscious.

5. These laws provide for State grants toward the cost of vocational classes and schools, including home-making classes, and also for expert supervision afforded by the State in the establishment and administration of such instruction.

6. Special provision has been made for training vocational teachers in State normal schools.

H. AID FROM THE STATE GOVERNMENT IN THE TEACHING OF HOME MAKING.

1. A State supervisor of the teaching of household arts should be provided under each State department of education to visit local schools, aid in the introduction of the new subject, the planning of equipment and course of study, the accrediting of work to colleges and universities, etc. Six States already have such supervision by specialists in home-making education: Illinois has a high-school inspector sent by the State university to determine the accrediting of household science for university admission; Louisiana has an official in the extension department of the State university charged with oversight of the schools to which State aid is granted for domestic science; Massachusetts has an assistant to the State commissioner of education to oversee continuation classes in household arts to which State aid is given; Wisconsin has a State inspector of domestic science under the State inspector of public instruction; Maine has the part-time services of the director of home economics in the Farmington (Me.) State normal school; and New York has an expert in home making in the vocational education division of the State education department.

The American Home Economics Association voted at its Cleveland convention, June, 1914, to memorialize the State superintendents of public instruction to appoint State supervisors of education for the home.

2. Money aid is given by many States to local communities for homemaking education:

(*a*) On the basis of local expenditure, as up to one-half the total expense, or one-half the salary expense, or one-half the equipment expense—usually up to a maximum sum. Or—

(*b*) A fixed grant for the elementary school teaching of household arts, or for the high school, or for both. Or—

(*c*) A grant for the consolidation of school districts which thereupon teach home economics and meet certain other requirements. Or—

(*d*) A grant, as in Iowa, for teachers' training classes in high schools which must teach home economics and meet certain other requirements. Or—

(*e*) A grant for certain types of schools, as county schools of agriculture and domestic economy in Wisconsin and North Carolina, and selected high schools, as in Virginia, Georgia, and Arkansas, which must teach agriculture and domestic science.

3. The school laws should declare that home making may be taught; and in due time should declare that it must be taught, and that only teachers of certain standard may teach it.

I. STANDARDS AS TO CERTIFICATION OF TEACHERS OF HOUSEHOLD ARTS.

1. Two years of special training in household arts beyond the high school, in a normal school, technical institute, or college, should be set by law as the minimum for the certificate of the special teacher of household arts. The supervisory teacher of household arts should have three or more years' special training and special teaching experience.

2. The high-school teacher of home making should be a graduate of a full college course in academic and technical courses.

3. The regular grade teacher should have some training in household arts.

4. The vocational teacher should have actual vocational skill, properly attested.[1]

J. TRAINING OF TEACHERS OF HOME MAKING.

1. Departments of home economics should be established in all normal schools; such departments already exist in 159 such schools—all except 10 or 12 of the State normal schools.

2. One course in home economics should be required of all men and women who are to teach; this to include such topics as food selection, health protection, house sanitation, and money expenditure. Many normal schools require agriculture, manual training, or home economics; about one-half of the normal schools teaching home economics require of grade teachers, especially intending rural teachers, a course in this subject.

3. Two-year courses for household-arts teachers should be offered in all State normal schools, and a three-year course for training supervisors of the teaching of household arts in at least one normal school in each State.

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[1] New Jersey requires an examination by a committee of practical housekeepers.

4. One State has a special normal school devoted to training manual-training and home-economics teachers (Santa Barbara, Cal.).

5. City training schools are including departments of household arts, to equip the grade teacher with some knowledge in this field to train special teachers of household arts,[1]

6. Courses for training teachers are commonly provided in the home-economics departments of the technical institutes and colleges.

7. Courses in household arts in several States are required in the teachers' training classes in the high schools as one condition of the State grant (for example, Iowa).

8. Local school authorities may well be empowered to establish special training classes for vocational teachers, including home making.[2]

9. Vocational nonteaching courses in household arts are desirable in normal schools and other teachers' institutions to train in home making those who do not wish primarily to teach.

K. CONTINUATION INSTRUCTION IN HOME MAKING.

1. Continuation classes in home making for persons in employment are intended to give prospective and actual workers in the household arts instruction therein.

2. Such instruction should be organized for girls in industrial and commercial work, for home women, and for household employees.

3. Such classes should be organized at daytime hours and employed young women should receive a minimum amount of instruction in the arts of living.

4. The instruction of such classes should be organized in unit courses dealing with some single problems, and provided for the group especially interested therein, such as the furnishing of the house on $100, $300, $1,000, for young people about to be married; the planning of meals; the care of the child; the family budget of $750, $1,000, etc.

5. Such continuation classes in household arts have been organized in housekeeping model apartments by the Boston school committee for workers in candy factories, etc., and in Providence, R. I., as the "home school," [3] and are now conducted in many communities.

6. The Hughes-Smith bill proposes Federal grants for the instruction of household workers.

L. STATE SCHOOLS OF HOME MAKING.

1. New York State has established several secondary and collegiate schools of agricultural home making—at Alfred University,

[1] See the Chicago (Ill.) Normal College and the Washington (D. C.) Training School for Colored Teachers.
[2] Massachusetts law of 1914.
[3] See The Home School, Ada Wilson Trowbridge. Houghton-Mifflin Co. 1913. 95 pp.

Alfred, N. Y.; St. Lawrence University, Canton, N. Y.; and Morrisville, N. Y. Other instances are the work at Winthrop College, Rock Hill, S. C.; at the Alabama Girls' Technical Institute, Montevallo; the State institutes of Louisiana (for example, at Lafayette, La.); and the California Polytechnic School at San Luis Obispo, Cal.

2. There are special secondary schools receiving State grants in several States: The district agricultural schools of Arkansas, Virginia, and Georgia, with home economics departments, and the county schools of agriculture and domestic economy of Wisconsin.

3. The action of Wisconsin in establishing courses for home makers (in addition to those for teachers) in its normal schools, and relating these to the State university so that a normal graduate may pass to the university to complete a four-year course in home making, really creates a system of State junior colleges.

M. SPECIAL SCHOOLS OF HOME MAKING.

1. The "schools of cookery" for lady cooks, beginning about 1875 in the larger cities, have been centers of training in cookery for young women, home women, for "plain cooks," and for charity workers. Their important service is still continued in certain instances, as that of the New York Cooking School.

2. Private girls' schools of home making have been established: The Garland School of Home Making, Boston, which includes a boarding department with a complete practice house, the Barnard School of Household Arts, New York City, a day school, and the National School of Domestic Arts and Sciences, Washington, D. C.

3. The School of Mothercraft, New York City, is a professional school for training young women and mothers in the care of children and in home making.

4. The schools of philanthropy, in New York, Boston, Chicago, and St. Louis, engaged in training charity workers, provide instruction in methods of family rehabilitation.

N. THE TECHNICAL INSTITUTES AND EDUCATION FOR THE HOME.

1. The technical institutes—among others, Pratt Institute, Brooklyn, N. Y.; Drexel Institute, Philadelphia, Pa.; Mechanics' Institute, Rochester, N. Y.; Girls' Technical Institute, Montevallo, Ala.; and the schools for the colored race, as at Hampton and Tuskegee—primarily train technical experts in various fields, including home making. In home making they have especially trained teachers, and have produced a valuable type of teacher—one who emphasizes the vocational point of view.

O. COLLEGES AND UNIVERSITIES.

1. It is estimated that about 7,500 college and university students were attending courses in home economics in 143 colleges that were given courses in home economics in 1912 and probably 12,000 such students in 250 colleges in 1914. Of 5,547 of the 1912 students regarding whose registration in home-economics courses the facts were reported, 63 per cent were studying home economics for home use, 32 per cent to become teachers, and 4.8 per cent in preparation for administrative and commercial positions. The average (mean) percentage of women students in home economics was 26 per cent of all women students in the colleges so reporting.

2. Of 86 colleges reporting with full data as to a curriculum in home economics, 3 report a one-year course, 17 a two-year course, 3 a three-year course, and 54 a four-year course, while 8 report both two-year and four-year courses and 1 a three-year and a four-year course.

Of 74 colleges reporting regarding the degree offered for work in home economics, 13 colleges give the A. B. degree, 57 colleges give the B. S. degree, and 4 colleges give both degrees.

3. In universities research courses in graduate departments to train college teachers of home economics and scientific workers in these fields have been organized at Chicago, Columbia, and Yale Universities, leading to the doctorate of philosophy, and graduate work leading to the master's degree has been organized in some 20 colleges and universities.

4. College curricula making vocational applications of the household arts are offered in the following fields: Home making or household management, teaching of household arts, institution administration, dietetics, house decoration, lunch-room management, costume design, dressmaking, laundry management and supervision, and possibly other fields.

5. Applied science courses relating to the home have been offered in some 37 colleges and universities which do not have departments of home economics in such subjects as food chemistry, sanitation, economics of consumption, history of the family, euthenics. Certain of these courses are offered in the academic women's colleges, as Vassar, Smith, and Wellesley, where they may foreshadow professional courses or professional schools (such as that in another field, the graduate school of education at Bryn Mawr). Indeed, certain of the academic women's colleges—notably Elmira College, Elmira, N. Y.; Rockford College, Rockford, Ill.; Milwaukee-Downer College, Milwaukee, Wis.; Agnes Scott College, Decatur, Ga.; and Mills College, Cal.—have already organized vocational courses related to the home, and, in several instances, have offered vocational degrees.

6. Nonresident instruction in home-making subjects with college credit, is given by some 11 institutions, notably by the University of Chicago.

7. In the State colleges and universities departments of extension work in home making have been organized in almost every such institution to reach urban as well as rural communities, to work through women's clubs, boys and girls' clubs, libraries, etc., for home betterment.

8. Recognition of household arts taught in high schools has been given by 79 colleges and universities in their entrance requirements.

P. POPULAR EDUCATION FOR HOME BETTERMENT.

(*a*) *By Colleges and Universities:*

1. The "housekeepers' conference," meeting at the college, usually for a week's session, for informational and inspirational lectures and discussions (e. g., University of Wisconsin).

2. The college "short course in home making," for a longer period, as for example, three months in length, at Iowa State College.

3. The one to three day local institute of home making, with visiting speakers from the college (e. g., University of Illinois).

4. The movable school of home making—a five-day local course, with registration, lectures, and laboratory practice, which is then moved on to another community (e. g., that of the New York State College of Agriculture).

5. The moving exhibit, arranged in a railroad car with accompanying demonstrations; tent exhibits, State fair and county fair exhibits (e. g., University of Texas).

6. County consultation work under a State college, from a farm demonstration station—an agricultural worker at present, but home-economics work is projected. The Indiana law directs the county agents, who are under the supervision of Purdue University, to aid in the domestic science work of the schools, and in club work, etc., which has reference to home betterment; and Purdue University assists the county agents, who are primarily agricultural experts, by sending domestic science workers to the various counties.

7. The club movement for boys and girls is often organized under the State college, as for example, the tomato clubs and the Kansas home-economics clubs.

8. Most of the State colleges and universities publish popular bulletins on home making and furnish a correspondence consultation service on household problems, thus becoming practically a State bureau of expert information.

9. "Home schools" have just been inaugurated by the cooperation of certain State colleges (e. g., Pennsylvania) and the United States Department of Agriculture, whereby a group of farm women form a

class for home study, are organized by a visiting agent, meet for all-day sessions two or three times a week under the direction of their elected leader, and are supplied with the outline of a course, lecture notes, lantern slides, apparatus for cookery experiments, testing, etc., and a reference library from the college.

10. The college summer-school courses in home making, usually six weeks in length, have been taken by many home women, as well as by teachers. Notable schools are those at California, Chicago, Columbia, Cornell, Johns Hopkins, Virginia, and Wisconsin Universities, the University of the South, and Peabody Teachers College, Nashville, Tenn.

11. College instructors in home-making subjects have served wide fields through lectures before teachers' associations, women's clubs, and other local organizations.

(*b*) *Extension Work by High Schools and State Schools of Home Making:*

1. Housekeepers' conferences (e. g., Manassas, Va., agricultural high school).

2. Mothers' clubs at high schools (e. g., in Baltimore County, Md., and in some city high schools).

3. Household arts classes for home women offered by high schools after school hours.

4. Club work for young people.

5. Short winter course in home making, as authorized by the Wisconsin law, giving a special grant of $200 for 16-week courses in certain high schools, to begin November 1.

(*c*) *Extension Work by the Federal Government at Washington, D. C.:*

1. The United States Bureau of Education furnishes to schools and colleges expert advice and bulletins on education for the home. The home education division of the Bureau of Education, cooperating with the National Congress of Mothers and parent-teacher associations, aims to help parents in the home education and care of their children, to aid boys and girls in their home reading, and to further the education of parents. A list of 40,000 mothers is reached by bulletins and information.

2. The United States Department of Agriculture conducts nutrition studies and publishes popular bulletins (Farmers' Bulletin series) on the selection and preparation of food, and gives information by correspondence. This division of work has just been extended by Congress to provide similar work in textiles and in household management. It has also been announced recently that the Secretary of Agriculture will seek the organization of a bureau devoted to the interests of farm women. The food-control work of the Department of Agriculture under the food and drug law, 1906, and under the meat-inspection law, is also of immediate concern to the home.

3. The United States Children's Bureau studies the welfare of children, and issues, among other publications, popular bulletins on child care.

4. The Public Health Service publishes popular bulletins on hygiene and health protection, many of them having reference to the household.

5. The Federal Government, by the Smith-Lever law, has just provided funds for distribution to the States in supporting extension teaching of agriculture and home economics under the supervision of the United States Department of Agriculture. The appropriation, beginning at $10,000 for each State, with additions in successive years, will increase until the total is about $3,000,000 annually. Each State must duplicate the Federal grant, and the funds must go almost exclusively for extension work.

(*d*) *Betterment of Urban Homes:*

1. The social settlement has emphasized the home as a center of progress for neighborhood and community; it has taught household arts, in kitchen garden classes for small children, and in cooking, sewing, millinery, and housekeeping classes for young women, and by means of mothers' clubs. The settlement is placing great reliance upon proper instruction in home making in reaching girls and young women.[1]

2. The visiting housekeeper or domestic teacher who visits homes to give first aid in housekeeping, first instituted by the Association for Improving the Condition of the Poor, New York, in 1907, is now employed in probably 50 communities by the charities organizations and other agencies, and is being urged upon municipal boards of health as a health measure of high importance.

3. The visiting nurse, whether school nurse or district nurse, reaches the home with an effective introduction, and has many opportunities to teach better housekeeping while caring for the sick.

4. Certain boards of education, notably that of New York City, offer popular public lectures, not to be classed as continuation education, which in their wide program include home-making subjects.

5. The housekeeping center or model flat, instituted first under Miss Mabel H. Kittredge in New York, has been established in several cities. It is a housekeeping settlement in which a flat is furnished as a model in a congested district and used as a teaching place for groups of children and mothers from the neighborhood. Preferably it is in charge of a resident teacher, though the teacher may not be in residence.

6. The Young Women's Christian Association and similar religious and social organizations have conducted excellent educational work in home making. This work is also being extended to rural districts.

[1] "Young working girls," Woods and Kennedy, Boston. Houghton-Mifflin Co., 1913. p. 185.

7. Popular instruction for the improvement of housekeeping in industrial communities has been instituted by industrial companies themselves, as the model housekeeping centers of the United States Steel Co.; by the Young Men's Christian Association through its industrial department; and in college extension work, as in the mill-village work of Winthrop College, Rock Hill, S. C.

Q. MISCELLANEOUS AGENCIES CONCERNED WITH HOME BETTERMENT.

1. The Patrons of Husbandry, or the "grange," a rural organization operating in over 30 States, has, from its organization 40 years ago, given attention to home-making problems in its local, State, and national meetings, and has urged education for the home.

2. The American Home Economics Association, founded in 1909, is the national organization of teachers of household arts and related professional workers, and was the outgrowth of the Lake Placid Conference on Home Economics, 1899–1908. It has many branch organizations and two special sections which deal with domestic housekeeping and institutional housekeeping, respectively; it holds annual meetings and publishes the monthly Journal of Home Economics, Baltimore, Md.

3. The National League for the Protection of the Family was organized by the late Rev. Samuel W. Dyke, of Auburndale, Mass., about 1885, to study and combat the divorce evil. Annual reports are published. The secretary's address is Rev. John L. Sewall, 11 Foster Street, Worcester, Mass.

4. The International Congress on Home Education, held first in Fribourg, Switzerland, in 1908, met at Ghent, Belgium, in 1913. A permanent office of the Congress is maintained at Fribourg (office International de l'Enseignement Ménager). This office publishes a bulletin, 1.25 franc per year. Yearly membership in the international federation, including subscription to the bulletin, is $1.

5. The National Congress of Mothers and Parent-teacher Associations is devoted to "child welfare in home, school, church, and State." The organization is an affiliation of local parent-teacher associations, mother-club circles, etc., with national officers. A national congress is held every three years. Cooperation is given the United States Bureau of Education in its division of home education. The organ of the association is Child Welfare Magazine, Lippincott, Philadelphia.

6. The International Congress of Farm Women (Cercles des Fermières), which organizes rural women, held its third meeting at Ghent, Belgium, in 1913. Affiliated with it is the International Congress of Farm Women (American), which holds annual meetings with the Dry-Farming Congress.

7. The National Housewives' League concerns itself especially with household food supplies and marketing. It has affiliated local organi-

zations and national officers. Its organ is the Housewives' League Magazine, New York.

8. The Associated Clubs of Domestic Science is an affiliation of local organizations, with national officers who conduct a department in the National Food Magazine, New York.

9. The National Society for the Promotion of Industrial Education aims to aid in securing the adoption of vocational education laws and the introduction of vocational education into schools. It maintains an office at 140 West Forty-second Street, New York City, a general secretary and assistants; it holds meetings, publishes bulletins, and acts as a national clearing house for the vocational education movement.

10. The American Society for the Study and Prevention of Infant Mortality holds an annual national convention to discuss methods of progress in its field, publishes literature, and has an information and propaganda office at Baltimore, Md. For three years one of its sections has discussed continuation schools of home making and child care as a measure of central importance in reducing unnecessary mortality of infants and has petitioned the State educational authorities of the various States for the establishment of such schools.

11. The committee of the American Medical Association on public health education among women secures the cooperation of physicians in providing popular education for women by lectures, printed material, etc., throughout the whole country.[1]

12. The National Housing Association unites all interested in improving living conditions as regards shelter, by popular education regarding standards of housing, formulated in municipal and State housing laws. The reports of its annual convention are a summary of problems and progress in this field.[2]

13. The General Federation of Women's Clubs, through its national home-economics committee, leads in the educational work for home betterment which is carried on by hundreds of local women's clubs throughout the country. The State home-economics chairmen give similar aid. Local clubs, through home-economics committees or sections, hold lectures, singly or in series, give programs of papers, aid in introducing household arts into schools, adding household books to libraries, etc.[3]

14. One special correspondence school in home making, the American School of Home Economics, Chicago, is worthy of note as having published a praiseworthy library of home economics and as having registered some 15,000 persons in its reading or study courses.

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[1] Address: American Medical Association, Chicago, Ill.

[2] Address: 105 East Twenty-second Street, New York, N. Y., where it maintains an office with permanent staff.

[3] Address: General Federation Information Office, Portsmouth, N. H.

15. The National Consumers' League recognizes the power of the ultimate purchaser in the market to affect the economic and sanitary conditions under which goods are produced and sold, and it unites housewives and other purchasers in demanding fair factory and store conditions, by trading only with stores on the league's White Lists and buying only goods bearing its label.[1]

16. The National Child Labor Committee aims solely at the protection of children now exploited in industry by raising the legal school age and by forbidding the employment of small children, thus protecting the family group of the present generation, as well as safeguarding the next generation at a vulnerable point.[2]

17. The Child-Helping Department of the Russell Sage Foundation endeavors to secure laws for the protection of children, to improve the care of children in institutional homes, and to reduce infant mortality—in general, to better the condition of children.[3]

18. The press, which, in its relation to the household, includes the women's departments of daily papers and of religious, agricultural, and fraternal organs, and especially the household monthlies, exerts a great influence for home betterment. This influence seems likely to increase now that our schools of journalism and home economics are beginning to give definite place to training in household arts journalism. The State College of Iowa, for example, gives two courses in home economics journalism.

19. The public libraries have commonly given space to the literature of household management and its various divisions. Sometimes these books are given a special household shelf or section. It has been suggested that, with the growth of the household consulting service now beginning in various ways, an expert household consultant might possibly be placed in charge of such a housekeepers' room and reference library, at least in the large libraries.

20. The household experiment station, so far best illustrated in the proprietary "station" of Mr. and Mrs. Alfred Child, at Stamford, Conn. (formerly Charles Barnard, Darien, Conn.), may possibly be developed as a common agency for household progress, quite as the agricultural experiment stations have served in their field. Senator Reed Smoot has proposed a Federal grant of $10,000 a year to each State for scientific research in home economics at the agricultural stations.

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[1] Address: Mrs. Florence Kelley, general secretary, 106 East Nineteenth Street, New York, N. Y.

[2] Address: The National Child Labor Committee, 105 East Twenty-second Street, New York, N. Y.

[3] Address: The Child-Helping Department of the Russell Sage Foundation, 130 East Twenty-second Street, New York, N. Y.

III. LOCAL PROGRESS IN EDUCATION FOR THE HOME.

There are presented in the following section facts of progress, taken from returns made to the Bureau of Education, as regards elementary schools and high schools, practical household-arts work in public schools, vocational classes, normal schools, and colleges.

A. PROGRESS IN ELEMENTARY SCHOOLS.

The reports as to instruction in household arts in elementary schools are favorable in all instances except one from Oklahoma, and in that case the objection is rather to the lack of equipment than to the instruction itself. The superintendent of schools in one Oklahoma city reports "only enough domestic science to comply with the law; * * * it seems to me time wasted, in most cases from lack of proper equipment, crowded curriculum, poorly prepared teachers in this line, etc."

Bozeman, Mont., and Baker, Oreg., have new cottages for practical work, and Cleveland, Ohio, has added infant hygiene classes in the eighth grade.

Columbus, Ga., reports work well organized in both white and colored schools, and a new domestic science center.

Monroe, Ga., reports that provision for household arts is to be made in the new school buildings; meantime beginnings are making in the mill-village and colored schools.

New Orleans, La., reports that last year 11 new domestic science centers were established.

Lincoln, Nebr., has this year increased its work in household arts by equipping a ward building in a German-Russian district with a cooking laboratory, laundry, practice kitchen, practice dining room, and a sewing room.

Trenton, N. J., gives lessons on the care of bedrooms by sending a large doll's bed to the various classrooms.

Mechanicsville, N. Y., in introducing household arts, will make it elective above the fifth grade.

Newark, N. Y., will put cooking instruction as low as the sixth grade in a school in which girls leave at the end of the sixth year.

The Enid (Okla.) superintendent reports: "I am emphasizing household arts and a knowledge of how to conduct a household in its broadest phases; I think we give too much attention to domestic science."

Philadelphia, Pa., last year increased the elementary course in cookery to two years, and in July, 1914, instruction on the care of infants was added.

Wilkes-Barre, Pa., started 30 additional elementary classes in household arts.

Pawtucket, R. I., reports that special classes in the household arts were established last year for girls 12 years of age who do not expect to complete the elementary course.

Rutland, Vt., reports domestic science as introduced eight years ago: "Each year we have broadened the course somewhat, and each year reached a larger number of pupils."

Whitewater, Wis., says that "after five years the interest continues excellent."

B. PROGRESS IN HIGH SCHOOLS.

The sweep of the home education movement is well illustrated by the situation in New Hampshire, where 22 of 78 standard first-class high schools up to June, 1914, had introduced household science, and 30 more were expecting to do so in the fall, so that the State superintendent anticipates that all girls' high schools and coeducational high schools will have such courses within a few years. In North Carolina, 7 county high schools with departments of home economics had been organized up to June, 1914, and 9 similar schools were under organizations, while Virginia voted this year $30,000 for dormitories at the district high schools that offer agricultural and home-economics courses.

Arizona reports that 16 high schools received this year State aid amounting to $10,000 for their departments of domestic science.

Kansas reports 93 high schools teaching domestic science as compared with 48 teaching manual training and 333 teaching agriculture.

By a rule of the Utah State Board of Education high schools must offer one-half unit of instruction in a group of courses which includes domestic science and art, and as a result nearly all high schools teach something in this field.

Caldwell, Idaho, in the high school serves members of the local ladies' club with a full-course dinner—the students planning, marketing, and carrying out the enterprise; and a plan is under way to serve a hot lunch to pupils.

Cedar Rapids, Iowa, has a Thursday afternoon class for domestic help, and reports great community interest in practical education. Daily high-school work in home-making subjects, instead of fortnightly, has been inaugurated this year, and domestic chemistry added.

Independence, Iowa, has added a course in practical dressmaking and one in laundering in the high school.

Oskaloosa, Iowa, reports domestic science electives as growing in registration, "yet elective Latin was far more popular."

Concord, Mass., reports an increase of 50 per cent in high-school registration in household arts.

Malden, Mass., introduced a four-year high-school course in household arts.

Mankato, Minn., added a home administration course as a third year in high-school work in home making.

St. Paul, Minn., reports new high-school courses in design, millinery, camp cookery, and dietetics.

St. Louis, Mo., reports in high-school work a closer union between drawing and household arts; and special instruction provided in parts of the city where most needed, in the care of the home, purchasing of supplies, care of the sick, etc.

Barkerton, Ohio, has introduced household management in the high school.

The Harrisburg, Pa., superintendent of schools recently recommended to the board of education the rental of a dwelling house as a home-making laboratory, and the employment of "an experienced and competent woman teacher to be known as matron, whose duty it would be to have general out-of-school oversight of the high-school girls, including personal conferences."

Spartanburg, S. C., reports that 85 per cent of high-school girls are taking the course in domestic science.

Hillsboro, Tex., reports new high-school work in household physics, chemistry, and sanitation.

Portsmouth, Va., has made two years of household arts obligatory for girls in high school; and Mishawaka, Ind., has made one semester obligatory.

C. PROGRESS IN PRACTICAL WORK.

Schools in all parts of the country report credit for home work in the household arts.

In connection with the girls' club work an effective effort to improve home conditions as regards sanitation, food, clothing, child care, etc., is going on in the 24 States where canning clubs are organized. "The tomato is the key to unlock the kitchen door," and indeed to open the doors of the whole household for home-betterment instruction.

School lunches have been organized in connection with household-arts teaching in many cities, including Gary, Ind.; Winchester, Mass.; Wilmington, Del.; Auburn, Me.; and Alliance, Ohio. Gary, Ind., is also experimenting with taking orders for sewing and laundry work, in order to give real practice work.

Orange, N. J., reports that a number of girls did work as practical cooks in private homes after school, and Virginia, Minn., has instituted a "service bureau" in connection with the schools, whereby students in domestic economy and manual training are called upon to do work in homes at a small wage per hour. This tendency to undertake wagework in households is reported in several other places.

In Boulder, Colo., the girls of the sewing classes are voluntarily making garments, bed linen, and baby linen to be donated to the local hospital.

Meriden, Conn., has arranged Friday afternoon lectures before the housekeeping students, by grocers, insurance men, hardware dealers, builders, plumbers, and others, on various phases of household economy, to which the public is also invited.

C. R. M. Sheppard, county superintendent of Deland, Fla., reports that a teacher has been employed for the whole county to look after club work and extension work for adults, and to conduct a circulating school of household arts; her work will be directed by the county superintendent and she will do community welfare work in the towns visited. This is a good instance of the widespread benefits radiating from the tomato-club work.

Spring Valley, Ill., reports that "actual domestic work" is done, and Shirley, Ind., that "all work has been made more practical."

Greencastle, Ind., secured equipment for domestic instruction by renting an old hotel building.

Eldorado, Kans., is emphasizing practical home work: The care and mending of clothing, care of young members of family, buying groceries and dry goods economically, making one's own clothes. Credit for home work is also given.

Saginaw East Side, Mich., added laundry work in the seventh and eighth grades; and in its evening class in household arts had one-half the class of housemaids, the other of industrial workers. The economic value of housework was emphasized in the school classes by selling cooked products, canned goods, candy, etc.

Chisholm, Minn., is to add this year a course in housekeeping, with practice in a model apartment.

Hoboken, N. J., in its high-school work in domestic science, places the buying for the cooking lessons in charge of students; students get part-time wage-earning housework in the city as there is opportunity.

Niagara Falls, N. Y., makes a special feature of practice meals in cookery lessons.

Coshocton, Ohio, seems to emphasize practical undertakings: Luncheons given by class; class suppers; cooking for home orders; hat trimming; pupils going to houses to do cooking, including cooking for the sick; meals prepared for business men, board of education dinners, etc.

Elyria, Ohio, reports "more making of wearable garments," and Beaver, Pa., finds many girls becoming the buyers in their households.

Mount Vernon, Ohio, has equipped a kitchen with tubs and wringers for laundering the kitchen and dining-room linen.

Xenia, Ohio, reports that while it has not been possible to introduce household arts, demonstration lessons are given in school and repeated by the pupils in their homes, the parent-teacher association cooperating in the work.

One Ohio town has made a study of the work which girls do in their own homes, and an effort is making to give "a practical application of the teacher's efforts to the plain substantial things in cooking and sewing."

Pittsburgh, Pa., emphasizes "practical general housekeeping, to which cooking and sewing contribute," which is an instance of a new emphasis in many schools upon housekeeping and home making instead of the individual household arts, cooking and sewing, separately considered.

At Charleston, S. C., members of the domestic science graduating class of the high school took all their meals together for a week at the school, the students planning, marketing, preparing, and serving the meals.

Brookings, S. Dak., gives school credit for home work in preparing one meal per day for three months; making beds daily; doing the house laundry; also, for making a dress, waist, and nightgown; and for keeping a savings-bank account for a year with monthly deposits.

In Box Elder County, Utah, the household arts are taught in the schools; in sewing the handwork is done in school, but in cooking, theoretical work only is given in school and practical work is done at home.

D. PROGRESS IN VOCATIONAL CLASSES.

A large number of cities report the formation of classes for vocational instruction; in some cases the instruction is given in the evening. Continuation classes for housewives were introduced at Quincy Mass.; New Haven, Conn.; and Worcester, Mass. Valparaiso, Ind., reports continuation classes, and Vallejo, Cal., will open a class for adult women this winter.

Some of the reports are here given:

Sterling, Colo., reports opening adult classes taught by expert seamstresses and cooks; "The course is great; people are flocking to these classes."

New Haven, Conn., began in September, 1913, its trade school, with a one-year home-making course.

Waterbury and Hartford, Conn., have established evening classes for wage-earning women.

Winsted, Conn., has afternoon and evening classes for shop girls, matrons, clerks, and others.

Farmer City, Ill., formed one class during school hours for persons not members of the school.

Muncie, Ind., has evening classes for women in five centers, where cooking, garment making, millinery, and nursing are taught.

Charles City, Iowa, has organized winter classes in cooking and in physical training for women and for factory girls.

Clarinda, Iowa, is planning a class in cooking and sanitation for young women and girls who can not attend school. In the regular high school the registration doubled last year.

Garden City, Kans., is opening its domestic work to graduates of the high school and to others not in the school.

Winfield, Kans., held a six-week summer school in 1914 for children from 8 to 21 in household arts and manual training; the former classes were also open to housewives, and a total enrollment of 250 resulted.

In Worcester, Mass., the public schools give evening cooking classes, which are attended by housewives, wage-earning women, and servants; and the trade school for girls also conducts continuation classes.

Coldwater, Mich., has arranged practical talks by business men, and is starting a continuation school for women.

Owatonna, Minn., gave adult women a special one-week course in cookery, and tried the plan of credit for home work in an eighth grade.

In Helena, Mont., household arts was extended last year to include special students.

Montclair, N. J., gave short unit courses to 150 housekeepers with great success.

In Nutley, N. J., instruction includes laundry and nursing, as well as cooking and sewing, and a prevocational class of girls from the sixth and seventh grades was started in September, 1914.

Utica, N. Y., reports an elementary vocational school with intensive work in household arts.

Clinton, Okla., reports that "any woman in town can enter the regular classes in household arts." In the school work, thrift and economy are emphasized.

In Wilmerding, Pa., classes in cooking and serving for foreign women have been opened by the schools.

Harrisonburg, Va., reports that a number of women and girls who are not regularly in high school come three afternoons a week for household-arts instruction.

Williamsburg, Va., reports "much interest and achievement among the colored girls through the work of an industrial teacher in sewing, cooking, home gardening, etc."

Beaver Dam, Wis., offers a Saturday afternoon sewing class for wage-earning young women.

Beloit, Wis., has equipped a flat for continuation classes in home making, and both day and evening classes for wage-earning young women.

Manitowoc, Wis., reported that its night school classes in household arts were especially large.

The high school at Stoughton, Wis., opened its domestic science department to a class of high-school graduates, who were taught by the regular teacher of domestic science, who also aided the ladies of a local home economics club which met in the department.

E. PROGRESS IN NORMAL SCHOOLS.

In a return from State normal-school principals in September, 1914, of 59 replying, 54 are teaching home economics, and 7 report home economics introduced in 1913–14 and 2 in September, 1914; these figures, combined with those from an earlier inquiry, show that 159 State normal schools, all but about 10 or 12 of the total number of such schools, are now teaching home economics. Of the 54 insti-

tutions reporting in this inquiry, 21 require some work in home economics of all intending grade teachers; 24 allow such students to elect home economics, and 28 require one or more courses in home economics of intending rural teachers; 32 of the 54 reporting offer a course for training special teachers of home economics; 9 report courses in home making; 25 of these normal schools report additions to equipment for household arts, and 14 report additions to their teaching staff in home economics during the past year. These figures would doubtless need to be more than doubled to represent adequately the whole situation in the normal schools.

One normal school principal writes: "Domestic economy needs saving from its friends; it must be kept close to home needs and home uses; already it has been sterilized and schoolmasterized to the loss of its earlier worth." He then adds: "Our school is a school for teachers. Any one may take domestic science here, but it counts only when the student plans and prepares to teach it." This aim seems to cut across the preceding one; if credit vocational courses were opened for home makers as well as for teachers, it would help keep the practical issues of home management prominent, and the subject would not be sterilized as it doubtless always tends to be when approached in terms of the teaching process and the schoolmaster. This particular normal school is emphasizing the practical, however, by adding a cafeteria to be conducted by its cookery department.

New Hampshire, Ohio, Kansas, South Dakota, and Washington report that courses in household arts have been introduced into all of their normal schools.

The Aberdeen (S. Dak.) Normal School offers short courses in winter to girls from farms; the Bloomsburg (Pa.) Normal School offers a two-year home makers' course and some night-school work in household arts; and the Huntsville (Tex.) Normal School gives home makers' courses in the summer.

The Fort Hays (Kans.) Normal School gave in 1913–14 a month's winter course for farmers and housekeepers which brought out 521 persons. In its new courses this year are included nursing and laundry.

The Mississippi Normal College, at Hattiesburg, gives weekly practice work in rural school lunches in the practice school.

The River Falls (Wis.) Normal School gives "a course in self-boarding required of all students who board themselves."

The Stevens Point (Wis.) Normal School offers a one-year and two-year home makers' course for women and girls, and holds one or two home makers' conferences each year.

F. PROGRESS IN THE COLLEGES.

Returns in September, 1914, from 178 colleges and universities that receive women students indicate that 106 of those replying offer courses in home economics and that of this number 37 introduced

the subject in 1913 or 1914; these facts considered in connection with earlier returns indicate that a total of approximately 250 colleges for women now offer distinct courses in home economics. Of the 106 colleges now reporting on home economics courses, 53 have added to equipment for these courses in the last year, and 23 colleges which were teaching these subjects a year ago have this year an increased staff in this field.

In 1913–14 the University of Arkansas and the State College of New Hampshire were among the colleges which inaugurated courses in home economics. Tabor College, Tabor, Iowa, and the new State College for Women at Newark, Del., began courses in September, 1914, and the Connecticut Woman's College, to be opened in September, 1915, at New London, Conn., will include courses in household arts and and other fields of professional study.

The University of Illinois in its department of household science reports growth for 1913–14 as follows: Enrollment increased 23 per cent; the first food course, 15 per cent; textiles, 38 per cent; household management and lunch-room management, each 66 per cent; advanced courses in foods, each 100 per cent; teachers' course, 150 per cent; senior class in the department, 187 per cent. "The growth on the art side, where the total registration is 343, is gratifying, as that is not so well developed anywhere as the food work, and the need for trained work is very great."

Iowa State College has begun a two-year noncollegiate course for those interested in home making and for those wishing to obtain positions as institutional workers, dressmakers, milliners, designers, demonstrators, and tea-room managers.

Teachers College, Columbia University, offered this year an increased number of graduate courses in household arts; there are now offered five graduate courses in nutrition, two in physiological chemistry, one in organic and household chemistry, two in foods and cookery, one in textiles and clothing, two in design and decoration, and seven graduate courses in household and institution administration, including the economics of the household.

The University of Vermont, Burlington, in its department of home economics, has successfully made use of opportunities for studies of household administration, cost of living, etc., through class visits to private homes of members of the faculty, and several such homes have this year been opened for practice work in planning expenditures, including menus for one or two weeks. Prof. Terrill finds this even more practical, perhaps, than a formal practice house.

Blackburn College, Carlinville, Ill., is just starting a department of household arts in connection with a self-help plan whereby the students pay $100 and work three hours a day.

In Lewis Institute, Chicago, a noncollegiate curriculum of institution management has been added, as have also new courses in home cooking and table service and home nursing.

Des Moines College, Iowa, reports that "the girls in liberal arts are now taking courses in home economics in a wholesome spirit."

Hood College, Frederick, Md., is introducing home economics into the high schools of the county, the college director acting as supervisor of home economics in the public schools.

The Curtis School of Home Economics in the Municipal University of Akron, Ohio, opened in the fall of 1914. A four-year course is offered, leading to the degree of B. S. in home economics, and a five-year course which combines the liberal-arts course and the home-economics course. Curtis Cottage, the gift of William Pitt Curtis, of Wadsworth, Ohio, with parlors, dining room, kitchen, laundry, bedrooms, and laboratories, is to be used for the school.

New buildings for home economics are being planned or constructed at the University of Cincinnati, where a professional school of household arts, for several years conducted by the Cincinnati Kindergarten Association, has now been consolidated with the university; at Iowa State College; Goshen College, Indiana; Hood College, Frederick, Md.; College for Women, Allentown, Pa.; and Ohio University, Athens, Ohio. Brenau College, Gainesville, Ga., opened a model house in September, 1914.

Lincoln Memorial University, Cumberland Gap, Tenn., has inaugurated extension work in home making, to reach rural teachers.

Utah State College had 783 students in short courses and 166 in regular courses—a growth from 339 and 144, respectively. Rhode Island State College reports that its home-economics extension work is greatly increased.

The Florida State College for Women added last year a full-time extension worker, and the State University of Wyoming a demonstrator in home economics.

CHAPTER XIV.

KINDERGARTEN PROGRESS, 1913–14.

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Contents.—Legislation—Educational meetings of the year—Kindergarten and primary grades—Testing the value of the kindergarten—Reorganization of kindergarten training courses.

LEGISLATION.

Legislation, or proposed legislation, in behalf of the extension of public school kindergartens has been a prominent feature of the past year's advancement. Of the six States that as yet have made no legal enactments providing for kindergartens, Georgia and Virginia have put forth strong efforts to secure the passage of a permissive bill, i. e., one that legalizes the establishment of public school kindergartens in communities desiring them, but does not call for additional State appropriations. State-wide interest was aroused in connection with the Georgia and Virginia campaigns, and while the proposed measures were not passed by the respective legislatures, the subject of kindergarten education was fully discussed in the press and among the people. The Virginia Legislature passed an act lowering the public school age from 7 to 6 years, and thus paved the way for future enactments looking to the improvement of the school system from the foundation up. There has also been legislative activity in Tennessee and Arkansas in behalf of kindergartens and to lower the school age.

A real stride forward was taken in California. Through the organized efforts of the kindergarten teachers and of the State Congress of Mothers the following provision has been incorporated in the school laws of the State:

> The board of education of every city, city and county, or the board of school trustees of every school district in this State shall, upon the petition of the parents or guardians of 25 or more children between the ages of 4½ and 6 years, residing within a mile of any elementary school building situated in such city, city and county, or school district, establish and maintain a kindergarten or kindergartens: *Provided*, That such kindergarten or kindergartens shall be established only between the first day of June and the first day of August in any year.

This measure has stimulated the growth of kindergartens to the extent that 45 petitions have been presented and 32 acted upon favorably in 21 different cities, 19 of which had never before had kindergartens. In anticipation of an increased demand for kindergarten teachers, a kindergarten training department in the State

normal school at San Jose has been opened, and a private training school has been organized at Pasadena.

The Congress of Mothers in Illinois, encouraged by the California success, has begun activities leading to a similar kindergarten law in the State of Illinois. Efforts will be made to have similar bills passed in a number of other States.

EDUCATIONAL MEETINGS OF THE YEAR.

The programs presented at the three meetings of the two national organizations of kindergarten workers during the year 1914—the International Kindergarten Union, with the Department of Superintendence at Richmond, Va., February 23–28; the International Kindergarten Union annual meeting at Springfield, Mass., April 20–25; and the kindergarten section of the National Education Association at St. Paul, Minn., July 4–11—form an accurate index to those phases of kindergarten education in which current interest is most intense or in which steady progress is being made.

At the Richmond meeting the subject of "The kindergarten in relation to social work," was presented by Mrs. Frederic Schoff and Mrs. Margaret J. Stannard, who made a plea for a wider range of usefulness for the young woman trained in kindergarten methods. Dr. Dyer delivered an instructive address on "The kindergarten in relation to the primary school and the training of teachers."

The twenty-first annual meeting of the International Kindergarten Union, at Springfield, Mass., laid emphasis upon general culture and social responsibility rather than upon the technical aspects of kindergarten work. At the conference of training teachers and supervisors Miss Luella Palmer, of New York City, presented a paper on "Problems of the present; hopes and ideals for the future." The subject for the conference was "Standards for kindergarten training." At the conference of directors and assistants the subject for discussion was "The development of initiative," in which emphasis was laid upon the flexibility of organization, etc.

On delegates' day the new plan of reporting by States or by groups was undertaken, with satisfactory results. A most comprehensive State report was from Illinois, read by Mrs. Topping, of Chicago, who said that outside the two active areas, Peoria and Chicago and suburbs, there were only seven towns reporting public school kindergartens. She said:

> In Chicago the kindergarten training schools, in addition to the standard kindergarten training, conduct classes in the following subjects:
>
> 1. *Maternal efficiency*, including infant welfare work, considering the child physically and mentally.
>
> 2. *Home making and home management* which has distinct reference to a high type of womanhood and homemaking.

3. *Resident homes for the students*, which exemplify the home-management department and demonstrate, through the life in the home, high spiritual and social ideals.

4. *Hygiene*, which considers such phases of the subject as the child in the schoolroom and the individual and society.

5. *Elementary grade teaching* and the importance of understanding it as the next step in the educational process.

6. *Classes in handwork, games, and stories* for trained nurses to use with convalescent children.

7. *Social service*, designed to show the kindergartner how her training may fit her to serve in other lines of work connected with child welfare, and the readjustment to the youth and maiden period.

Some schools of Chicago have introduced the study of eugenics; some have courses on the Montessori method, and have utilized the Montessori material in the practice schools, while others have gone into lines of child study based upon recent scientific elaborations of mental and physical tests.

The report of cities and towns in eastern Massachusetts, presented by Mrs. Susan Harriman, was illuminating. Ten cities and ten towns in that part of Massachusetts east of and including Worcester support 267 public kindergartens, registering 14,700 children, at an average yearly cost of $22.50 per capita. The entrance age varies from 3½ to 5 years.

The closing session was characterized by addresses by Dr. John G. Hibben, president of Princeton University, who spoke on the subject of "The mechanical mind," and Dr. Alexander Meiklejohn, president of Amherst College, who discussed the question of "Liberal education."

Many new lines of thought were presented for consideration at the kindergarten department of the National Education Association, St. Paul, Minn. Dr. P. P. Claxton, United States Commissioner of Education, opened the session, with an address on "The readjustment of the kindergarten and primary grades to conform to the same general principles," in which he advocated much out-of-door work in kindergartens. He thought that if sessions were held in the open air much of the equipment now used might be dispensed with, but he upheld the Gifts as giving the child experiences which assist him in interpreting the things of life. He believed that the kindergarten and high school have much to learn from each other. Rousseau, he said, discovered *childhood*, but knew nothing of *infancy*. Froebel discovered infancy.

Dr. M. P. E. Groszmann, of Plainfield, N. J., spoke on "Adaptation of the work of the kindergarten to the needs of individual children." An interesting paper prepared by Miss Luella A. Palmer discussed "Problems *v.* Subject matter as a basis for kindergarten curricula." Miss A. M. Winchester described the work of the United States Bureau of Education regarding kindergarten education, and Dr.

Margaret E. Schallenberger spoke of the difficulty experienced in California in establishing new kindergartens under the present tax laws of the State. Dr. Schallenberger dwelt on the fact that there is—

a need of more knowledge on the part of kindergartners of the work of primary grades and more knowledge on the part of primary teachers of the work of the kindergarten, so in the coming year their training schools will have a combined course of kindergarten and primary work.

Mrs. Ware described a new feature in the training schools of Indiana, where kindergartners are required in the afternoon for one hour to work with children of other grades in stories, songs, games, and handwork.

The attention of the conventions of the year was given, in the main, therefore, to discussions of the following topics: (1) The relation between the kindergarten and the primary grades; (2) testing and measuring the kindergarten by its results; (3) the reorganization of kindergarten training courses.

KINDERGARTEN AND PRIMARY GRADES.

In particular the possibility of closer organic relation between the kindergarten and the primary grades is receiving serious attention at the present time. The tendency to pass over the chronological ages of children in favor of their mental ages, and to regard as one unit the period between 5 and 8 years, is bringing about changes in belief and practice. Reports from various parts of the country at the International Kindergarten Union meeting indicated clearly that an approach to the problem has already been made by means of the establishment of friendly and sympathetic relations between kindergarten and primary teachers, a necessary preliminary to the real integration of kindergarten work with primary work. The year's advance lies in earnest efforts to go a step beyond sympathetic understanding and to work out effective means of organizing the two phases of education. In general, there are three types of plans:

(*a*) *To arrange courses of study in elementary schools in such a way as to take cognizance of the subject matter of the kindergarten "program" and interrelate it with that of the rest of the school.* For instance, the faculty of Speyer School, Teachers College, New York City, is making a careful scientific study of such interrelation. The children's handwork, number work, music, stories, etc., move forward in progressive development. The first grade does not duplicate what has been done in the kindergarten any more than the second grade duplicates the work of the first grade in the usual school program.

(*b*) *To place the kindergartens and primary grades of a school system under the supervision of one person, and that person a trained kindergartner.* One notable instance of a successful arrangement of this kind is to be found in Los Angeles, Cal. Miss Grace Fulmer, super-

visor of kindergartens and primary grades, under whom the new plan is being worked out, declares: [1]

The child who comes from the home to the first grade does not differ much in his attitude toward things from the one who comes from home to the kindergarten. He has had only a little more experience, a few more interests, a little better control of himself and his world; but it is the same self it was the year before, and it is the same world with its horizon stretched a bit. * * * The child leaves no impulse, instinct, interest, behind him, but brings them all along, each more forceful than the year before, and therefore in greater need of wise guidance and directed exercise. * * * To these interests is added a new one, his by natural right as well as by tradition, and that is the book, and the reading of the book.

Surely here is an opportunity for continuity in the educative process, when we take what the child brings from home in the way of experience, give it more meaning and begin to organize it in the kindergarten; broaden, deepen, enrich, and expand it from grade to grade in such a way that every school day will mean life, more life, and yet more abundant life.

(c) *To reorganize the training courses in normal schools so that the students shall be required to practice in primary grades as well as in the kindergarten.* Of 123 kindergarten training schools reporting to the Bureau of Education, the third method is used in 59, the time spent in primary practice ranging from 6 to 20 weeks. This plan has proved fruitful and bids fair to become much more widely adopted.

An interesting experiment in developing the connection between kindergarten and the grades is under way in Boston. The following statement is by a Boston teacher participating in the work:

In the spring of 1913, Dr. Franklin B. Dyer, superintendent of schools, called for volunteers from among the kindergartners to try the experiment of doing advanced kindergarten work with the children of the primary grades for two afternoons a week. The response was immediate and cordial; in September there were 49 kindergartners at work at this problem in 30 school districts, with the children of 60 primary classes.

The organization varied somewhat, but the most common arrangement was for the kindergartner to take one division of the lowest primary grade for the first hour of the afternoon session, and the other division for the second hour of the session, reversing the order of the divisions on the second day. Occasionally her work was with only the lower divisions of two first grades, and again it extended into a second grade.

Great freedom was allowed in the choice of activities and arrangement of the program, though at Dr. Dyer's request all the teachers gave ample opportunity for the free conversations familiar in the kindergarten, but often lacking in the primary classes, with their larger numbers and more formal procedure. Advanced gift and handwork were used in most classes, the former for free construction and for number work, the latter for hand training and for free expression of experiences, drawing and paper cutting proving especially valuable in this work. Games were played, stories were told, and many delightful excursions were taken to woods and parks and farms and beaches, both stories and excursions furnishing rich supplies of material for conversations and expression through handwork.

At the close of the year the 60 primary teachers were asked for reports and frank comments on the experiment. All but one reported favorably, many with enthusiasm. The chance which it gave them to work with smaller groups was greatly appreciated, and several reported specifically that this had resulted in having a larger

[1] Kindergarten Review, Sept.-Oct., 1913, "Suggestive course of study for the kindergarten and first grade."

number of children than usual ready to promote. That the experiment had awakened intelligent interest among the teachers is shown by their questions: Could we arrange for conferences between kindergarten and grade teachers? Could primary teachers be given time for home visiting? Is there any way of furnishing instruction in kindergarten work as a whole to primary teachers in active service? Can the ideals of the kindergarten be made the ideals of the school? Can the grades be given a more flexible program? Can there be more time for this extension work another year? It is hoped that some of these questions may be answered by degrees through the new three-year kindergarten primary course to be established in the Boston Normal School in the fall of 1915, which is to give special training for teaching in the kindergarten and first three grades, a step which ought to do much toward bridging the gulf that so often exists between the kindergarten and school.

The following extracts from letters written by kindergartners who carried on the experiment last year will give a more vivid idea of its significance than can be conveyed by general statements.

1. (From a kindergartner in a crowded suburban district where very few children come from even comfortably well-to-do homes.)

As the spring began I took the children out whenever I could to see the awakening of nature. We noticed the grass and leaf buds and early flowers as they came—snowdrops, tulips, and hyacinths. Previous to this the children were interested in the growing plants that I had in the kindergarten; I had a pan of daffodils, two pots of hyacinths and two pans of paper white narcissus at different times, and the children enjoyed noticing each week how they had developed. We had drawing lessons based on these observations and on the flowers I took to the kindergarten from week to week, such as pussy willows, anemones, mayflowers, dandelions, violets, lady's slippers, columbine, etc.

One week we went to a friend's house and saw in her yard ducks, hens, and two turkeys, one a very fine gobbler. The day being windy, we noticed the clouds and weather vanes. One vane we studied, and the children noticed the different letters on it, and with a little careful looking and some explanation we found that the wind was southwest. On each walk we usually had a few minutes for free play in one of our two parks, and on this same windy day we stood under a group of pine trees and heard the song of the wind through them. * * * We went to the Aquarium—a visit thoroughly enjoyed. Out of a class of 40 children, only 7 or 8 had ever been there before. We also had a half hour's fun on the beach each day, and for some of the children the car trip was an unusual treat. They were well-behaved, and we had a good time all around.

2. (From a kindergartner in a suburban district, close to the country, where many of the people own their own homes.)

After much groping about among the many alluring possibilities, I decided that, first and foremost, I would take those primary children out of doors into the woods and fields each week, and that I would also train them to careful and accurate use of scissors and paint brush. This latter work was carried on for several months and resulted in marked improvement in the quality of their handwork throughout the first-grade year.

The children loved the excursions. We climbed out upon Sally's Rock and reveled in the far-reaching view; we wandered in the woods listening together to the music of the wind in the tree tops, or watching red and gold leaves drift silently down against a background of dark evergreens; we were blown about the open fields by the "wild west wind," who swayed the tall grasses like ocean billows around us and sent masses of great fleecy clouds flying over our heads. Back in kindergarten again, we talked our excursions over together, occasionally weaving our experiences into a simple story, which I often wrote down bit by bit as the children gave it to me. Dearest of all to the children's hearts was the trip to the Zoo, and nothing could be more spirited and graphic than the set of drawings in which next day they immortalized every slightest detail of that experience.

As the weather became too severe for excursions, story-telling and games were substituted. The children were always delighted and eager to cut or draw their version of the story given them, and some of these versions proved most entertaining. The best drawings were those illustrating the stories of David and Goliath and How Cedric became a Knight. The class gained perceptibly, too, in power to retell the stories in response to a few leading questions.

TESTING THE VALUE OF THE KINDERGARTEN.

Testing and measuring the value of the kindergarten by its results is a theme no less interesting to the entire school world than to the kindergarten portion of it. For several years investigations have been undertaken in different cities for the purpose of ascertaining in concrete terms the advantages gained by children with kindergarten training over nonkindergarten children. The emphasis in these investigations has been placed usually upon the rate of speed with which the children make the successive grades. The fallacy of drawing conclusions from such surveys is manifest at once. In the first place, it is well-nigh impossible to gauge the speed correctly, because in the first grade both kindergarten and nonkindergarten children are placed together, and by the rule of uniformity which seems necessary in school systems, the teacher more or less unconsciously standardizes the progress of her class. The laggards are brought up by dint of conscientious work, and the forward ones are held in leash, so that by the time the fifth or sixth grade is reached, whatever special impetus may have resulted from a child's kindergarten training has ceased to be measurable.

A correct evaluation of the kindergarten in point of time saving can never be reached except where kindergarten children are kept separated from nonkindergarten children throughout their subsequent school course, and are advanced as rapidly as healthy development allows. An experiment of this type has been under way for a year or more at Horace Mann School, New York City, and before another five years have passed definite data on this problem should be available.

In the second place, the permanent value of the kindergarten has little if any connection with the number of years required to go through the grades. The kindergarten's concern is with the content of the years rather than with their number; with the fullness of the life of the child rather than with mere economy of time. Richness of mental content, power to think and to do, a tendency to assume right attitudes toward life and life relationships, and an ability to work and play happily with one's fellows—these are the results of training based upon the belief in *education by development*. The true test and measure of the kindergarten must be taken by qualitative standards; the quantitative measure must be merely incidental to the other. Dr. Frank McMurry, in his survey of the New York City schools, has supplied an instance of the kind of tests that should be applied in forming a judgment. The clearer perceptions gained during the past year or so concerning these matters are about to pass into action and eventuate in a somewhat different type of investigation from that of the past.

The following plans form a basis for an inquiry about to be undertaken by the International Kindergarten Union committee on investigation, and are indicative of the many-sidedness of the study:

(*a*) The committee believes that the value of the kindergarten, like the value of home education, can not merely be shown in ways that permit of statistical tabulation; that to cultivate fully the capacity of each stage of growth in the child should be the purpose of education, and therefore speed is not a criterion of value.

(*b*) The undertaking is to make a study in several different cities of one set of children who entered kindergarten five years ago, and another set in the same school who did not attend kindergarten.

(*c*) The records of these children will then be examined with reference to their interests, attitudes, spirit toward one another, etc.; also with reference to their proficiency in different school studies.

(*d*) In both cases the quality and spirit of the teachers who have had these children must enter into the estimates.

(*e*) The quality and spirit of the homes also will be taken into consideration.

REORGANIZATION OF KINDERGARTEN TRAINING COURSES.

Discussions of the content and organization of training courses for kindergarten teachers have been growing more thoughtful and forceful. Demands on all sides are insistent that the kindergartner shall have a wide acquaintance with educational principles in general and their application to all periods of childhood and youth; that she shall be so trained as to have an intelligent as well as sympathetic understanding of problems of teaching throughout elementary and secondary schools, and a firm grasp of the biologic and hygienic principles that play so large a part in the present-day conception of education.

Another factor in this question is the increasing demand for kindergarten-trained women to engage in various forms of social welfare work. It is recognized that such women have a peculiar fitness for serving as charity organization officers, school-home visitors, missionaries, deaconesses, settlement residents, organizers of parents' clubs, librarians of children's rooms, etc. In consequence, the courses of training schools are being enriched and enlarged in order to give still better preparation to their students for the new and wider opportunities of usefulness. In some instances the length of the period of training has been extended from the customary two years to three years in order to include courses in sociology, social welfare, hygiene, maternal efficiency, and similar subjects, as well as the more specific pedagogical courses. Efforts to adjust wisely the proportion of time that shall be devoted respectively to technical kindergarten subjects and materials, to the academic branches, to general pedagogy, and

to practice-teaching, are causing much earnest deliberation and experimentation. So important is this problem that it has been selected as the main subject for discussion at the conference of kindergarten teachers and supervisors to be held in connection with the International Kindergarten Union meeting at San Francisco, August, 1915.

The results of the emphasis on health and hygiene in the kindergarten training schools are evident in many ways, but particularly in the establishment of open-air classes for kindergarten children as well as other grades. Partial reports show the existence of effective outdoor kindergarten work in communities of seven States—California, New York, New Jersey, Connecticut, Massachusetts, Illinois, and Pennsylvania—and in Hawaii.

Closely connected with the open-air doctrine is the proposal to place the annual vacation for kindergarten children and teachers in the winter months, when bad weather always decreases the attendance, and to hold sessions during the summer months, thus making the kindergarten year run from March to January. The success of vacation schools and summer kindergartens, wherever held, is a forceful argument, and in two or three instances kindergartners are making the experiment. When the response becomes more general, it will be only a step from shifting the vacation time to holding kindergartens all the year round. But that is another story.

A thorough overhauling of the subject of the education of little children has been the result of the spread of Dr. Montessori's ideas in this country. Parents, school men, and kindergartners are all beneficiaries of the renewed interest in child life in general and of the attention which has been focused upon the important pre-school years in particular. Kindergartners are especially grateful for the reemphasis which has been placed by Dr. Montessori upon Froebel's demands for greater freedom in education, for development of individuality, for self-activity, and for right sense training. In several training schools, lectures on the Italian method and materials are now included in the courses in general pedagogy; and in a few communities kindergartens make use of the Montessori materials in addition to the Froebelian materials, and keep records of the experiments. Froebelian materials are also being used according to Montessori methods, and the results carefully noted.

STATISTICAL GROWTH.

In the matter of the numerical extension of the kindergarten a survey of statistics for 1913–14 made by the Bureau of Education reveals a most satisfactory rate of increase. It has been possible to secure data from practically every village and city in the country with a population of 500 and over. It would seem that lack of size

in a town is no hindrance to the establishment of a public school kindergarten; some of the most effective kindergartens are in small villages where community ideals are high. Comparative figures for 1912 and 1914 are as follows:

Statistics of kindergartens.

	Public school kindergartens.		Kindergartens other than public.[1]		Total.	
	1911–12	1913–14	1911–12	1913–14	1911–12	1913–14
Cities and villages	867	1,135	412	677		
Kindergartens	6,371	7,254	994	1,571	7,365	8,825
Enrollment	311,970	391,143	52,219	74,725	364,189	465,868
Teachers	7,391	8,430	1,465	2,139	8,856	10,569

[1] I. e., parochial, private, mission, mill, settlement, association, State normal, orphanage, for Indians, in institutions for the blind, in institutions for the deaf, in institutions for backward children.

CHAPTER XV.

THE MONTESSORI MOVEMENT IN AMERICA.

By Anne E. George,

Director of Work for the Montessori Educational Association, Washington, D. C.

A review of the Montessori movement in America can, at present, be little more than a broad review of the interest manifested in this country toward the pedagogical spirit and methods developed by Dr. Montessori in her experimental schools and set forth in her books. Statistics of schools where the materials are used or the principles applied are not available, and an attempt to make a report of such a nature would probably strengthen the tendency, greatly deplored by Dr. Montessori, toward the rigid classification of her contribution to the science of pedagogy within the narrow limits of a "method of teaching."

The tenement schools in Rome within which Dr. Montessori initiated her experiments with normal children were regarded by her as laboratories for research work. To this study of man in the formative period she brought years of scientific preparation. Her first book, "Pedagogical Anthropology," consisting of lectures given in the University of Rome, is a partial record of this preparatory period. Her next book, through which her work is best known, was published (in Italy) in May, 1909, after two years' observation and experiments in the Case dei Bambini (children's houses), as the schools in the San Lorenzo tenements were called. Dr. Montessori gave to this book the title "The Method of Scientific Pedagogy Applied to Infant Education." She still holds by this title as defining the work done by her, and regrets the fact that it has been rejected by the publishers in many of the countries where the book has been translated.

The idea of applying the methods of experimental science to the study of man was not new; Dr. Montessori's particular contribution to the work has been that of establishing the conditions of the experiment, of developing a method of research that, while distinctly analogous to that of other branches of experimental science, has been modified by the characteristics peculiar to the form of life under observation.

Briefly summed up, her method for the experimental study of man reads:

> Give the best conditions of life, and then, as is done with other living organisms, give freedom for development, disturbing as little as possible, observing, certainly helping, by every means, in this development.

Out of such experimental study Dr. Montessori has evolved an environment adapted to the special needs of young children, and a wide range of "didactic material," so called because its use is so evident, the control it offers so strong, that it tends to replace the teacher at the earliest stage of education and to make it possible for the child to accomplish his first work independently of a mature mind. Out of such experiments she confidently expects others to bring fresh facts, and to build up the content of scientific pedagogy through a method of research, limited by no personality, allied solely to human beings who develop in liberty.

That pedagogical work of such a character was destined to meet with great interest in the United States is clear to anyone familiar with educational progress in this country. The biological concept of liberty, as the right of the individual to develop freely, had for many years been manifesting itself in various departments of social reform. In the public school system this tendency found expression in dental clinics, in special classes for exceptional children, and medical inspection of schools, all intended to lessen or remove infirmities of mind or body, which prevent the free development of the individual.

The history of the Montessori movement in America begins, properly speaking, with the publication, in McClure's Magazine, May, 1911, of an article by Josephine Tozier, entitled, "An Educational Wonder-Worker, the Methods of Maria Montessori." My own attention had been called to the work two years earlier by an account of the Case dei Bambini in Rome and Milan, contained in a letter from a friend living abroad. This account filled me with an intense desire to learn more of the methods employed, and as at that time there was no literature on the subject in the United States, I could only gratify this desire by going to Italy. In Rome I met the Dottoressa and with her visited the San Lorenzo model tenement schools, then still under her direction. Profoundly impressed from this personal observation, I determined to study the work as thoroughly as possible, and as the language was a serious barrier between me and the Dottoressa, from whom alone this new experiment could be learned, I returned to America to prepare myself to become her pupil. With this purpose in view, I brought with me a copy of the book Il Metodo della Pedagogia Scientifica, applicato all' Educazione infantile nelle Case dei Bambini and a complete set of the Materiale Didattico, at that time made almost entirely by hand in the Casa di Lavoro of Milan, an institution for the unemployed directed by the great socialistic reformer Alessandrina Ravizza.

At the time there were many other individuals in the United States interested in making a study of Dr. Montessori's book or planning to visit the schools in Italy, and in the pedagogical departments of the

various colleges and universities much of the same sort of isolated study was taking place.

In the summer of 1910 I resigned my position in Chicago and went to Rome in order to follow the course then given by Dr. Montessori to Italian teachers. At one of these lectures during the winter I met Miss Josephine Tozier, an American writer living abroad, and learned of the article which had been accepted by McClure's Magazine, and which she hoped would call forth great interest in America.

In the spring of 1911 Prof. Henry W. Holmes, of Harvard University, wrote to the Dottoressa, commenting upon his interest in her book and expressing a desire to see it translated into English and thus rendered accessible to the pedagogical world in England and America. American educators began also to visit the schools in Rome, an evidence of growing interest in the United States. It was not, however, until after the publication of the article in McClure's that Dr. Montessori was able to realize that the interest already shown by individuals was indicative of general readiness in this country for the ideas upon which her work was based.

The history of the Montessori movement in the United States has been so widely affected by the circumstance that it was first presented to the public through the medium of a popular magazine that it seems necessary to make some comment upon this fact. A popular article can give only a superficial presentation of any scientific achievement and is almost certain to overemphasize nonessentials, or even weaknesses, and thus for serious students and fellow scientists such a presentation often amounts to a condemnation of the achievement itself. For this reason the peculiar publicity given to the movement, with the consequent rapid manufacture and sale of its material, has been unfortunate in that it has obscured its essential principles. On the contrary, it must be considered that mothers and fathers *everywhere*, the teachers of *all* the children, are the educators whose experiments, whose pedagogical activities are going on constantly; theirs is the action which takes direct and persistent effect upon the children of the country; they are, therefore, the persons most in need of inspiration and of information. After more than four years of daily contact with this twofold situation, I am convinced that while scientific recognition and investigation of Dr. Montessori's work have been retarded by the unusual form of its presentation to the world at large, the actual progress of that world toward a recognition of the need of serious study and observation of man in the period of development has been given tremendous impetus.

The immediate response with which the magazine article met was amazing. Letters began to pour into the McClure office from every part of the country. It has so happened that from the beginning the greater number of these letters have passed through my hands,

and it seems to me pertinent to note that the point most stressed by a majority of the writers has been the opportunity offered for individual freedom in following the law of development.

In October, 1911, at the suggestion of Mr. F. A. Vanderlip, who had become interested in the work, I opened an experimental class in this country at the home of Mrs. Edward Harden at Tarrytown, N. Y. While this experiment with a group of children ranging in age from 2½ years to 9 years may be said to have brought favorable results, it has always seemed to me that a detailed account of it would be distinctly valuable as showing clearly the typical errors into which the Montessori directress will almost invariably fall, as well as the practical disadvantages of the system of experimentation when applied to already existing standards and conditions. This first experience has gone far toward bringing me to the conclusions expressed at the close of this review.

At this time Mr. S. S. McClure, acting for Dr. Montessori, arranged for the manufacture and sale of the materials in America, the company taking the name of the "House of Childhood." The materials represent a series of stimuli carefully selected and modified by Dr. Montessori during her quiet years of observation and experimentation in the Case dei Bambini, which formed for her a laboratory of psychological research. To make such materials available to persons interested in the method, but not initiated into the attitude of the scientist who undertakes an experiment, and with open mind awaits a reaction, was in some sense a mistake, as it made the method responsible for many failures, travesties, and illogical compromises; and yet from this wide opportunity for testing both theory and practice a decided forward impulse has been given in home and school toward individual freedom in the use of environment and material. Instances where complete application of Montessori theory and practice have been made are comparatively few, but it is scarcely possible to find a school, public or private, into which a valuable spirit of investigation and change has not entered with the Montessori book or the Montessori materials. The same may be said for the use of Montessori materials in the home. Certainly one should hesitate to recommend to untrained mothers or nurses that they introduce the Montessori materials into an environment usually planned without any serious attention to the needs of young children. Nevertheless, the enormous correspondence of the last four years gives evidence in hundreds of thoughtful, intelligent letters from mothers on scattered ranches or farms, in small towns and in large cities, sufficiently strong to make the matter of the restricted use of the materials an open question.

In the spring of 1912 the English translation of the Pedagogia Scientifica, with an introduction by Prof. Henry W. Holmes, of

Harvard University, was issued under the title of "The Montessori Method," by the F. A. Stokes Co., New York. The book found a ready sale, and this English version enabled many people in the United States to go more deeply into the matter and to formulate more clearly their impressions of the method. These impressions appeared in every form, from newspaper paragraphs and editorials to carefully thought-out books, and represent one of the most fortunate and valuable phases of the movement. This generation has never before witnessed such an open, widespread discussion of questions bearing upon the education of young children. The point so strongly emphasized by Dr. Montessori that all places where man lives free, under the best living conditions, may become laboratories of experimental psychology, brought parents as well as educators into the field of discussion, another step toward that understanding between home and school which all progressive educators hope for. There has been much unfavorable comment, and a few have gone so far as to see in the methods a menace to educational progress. It is interesting to note that, as a rule, the disapproval is directed against the material which has evolved from Dr. Montessori's experiment, against the activities for which the children manifest a preference. In almost every case the adverse critics approve the basic principles laid down by Dr. Montessori, in many cases declaring these to be identical with those upon which their own work is based.

This universal expression of interest, so undeniably stimulating and helpful to educational progress in the United States, constituted in Italy an unexpected tidal wave which threatened to overwhelm Dr. Montessori and her Case dei Bambini. Visitors poured in from every quarter, often far outnumbering the children in a school, and demands for training became more insistent every day.

In an effort to organize this interest and to assist Dr. Montessori in adjusting herself to a situation she had not anticipated, the Montessori American Committee was formed in the spring of 1912. Through this committee Dr. Montessori arranged her first international course at Rome. More than 100 students from various countries enrolled for these lectures, and of this number nearly 70 were Americans.

In October, 1912, at the request of Mr. and Mrs. Alexander Graham Bell, I took charge of a class of 20 children in their home at Washington. The parents of the children enrolled in this school became convinced of the value of the method for educational purposes, and determined to put forth every effort to extend the same benefit to other children. To this end they formed, in May, 1913, a national association, with headquarters in Washington. Mrs. Alexander Graham Bell was chosen president.

As stated in the articles of incorporation, the Montessori Educational Association was formed—

> to promote and develop in America the educational movement based on the principles and theories of Dr. Montessori, and to assist in the establishment and maintenance of schools for children and schools of observation and practice conducted according to said principles.

This constructive movement was met with cordial interest by people from all parts of the country, and the association membership now approximates 700.

Two free demonstration schools have been established and are still maintained by the association. The first of these demonstration schools, established in the Friendship House settlement in Washington, has proved an interesting example of how much beyond mere housing and feeding can be done for the children, under proper conditions, in day nurseries, orphanages, etc. The opinion of those who have closely followed the development of the children in the Friendship House school is that without radical change in diet, but with freedom to follow the law of normal development, mental, moral, and physical, they have made marked physical gains as they have also grown more gentle, joyous, and active. The directress of this school during its first year was Miss Elizabeth Fraser, one of the American students in Dr. Montessori's first international course. The second of the association's free demonstration schools was opened in September, 1914, by the New York chapter of the association. This school, which is in the New Open Stair Tenement at the foot of Seventy-seventh Street, realizes in many ways Dr. Montessori's original conception of the "Childrens' House" as given in the "Inaugural Address" which forms a chapter of her book.[1] "We have put the school within the house * * * leaving under the eyes of the parents the whole life of the teacher in the accomplishment of her high mission." Miss Fraser, who left the Washington school to take charge of this larger work, lives in the tenement, her place in Washington having been taken by Miss Jane Kenney, another of Dr. Montessori's students.

In addition to the establishment of demonstration schools, the association has acted as a clearing house for Montessori information, putting persons in touch with Dr. Montessori, with schools and teachers, with helpful literature, besides answering hundreds of questions bearing upon the problem of teachers and parents. The work of this central bureau of information, as well as the publication of a bulletin, "Freedom for the Child," was organized by Miss Zoe Russell Bateman, another member of Dr. Montessori's first international course.

In November, 1913, Dr. Montessori, who had been constantly urged by her students and friends in America to come to this country,

[1] For a full description of this type of school, see The Montessori Method, ch. 3, pp. 60–66, Maria Montessori. F. A. Stokes Co., 1912.

yielded to their persuasions and her own long desire, and in accordance with arrangements for the trip made with the help of Mr. S. S. McClure, who was at the time in Rome, she arrived in New York on December 4.

A series of lectures in a number of our larger cities was arranged for Dr. Montessori by Mr. McClure, the proceeds to be used by her in the establishment of a permanent center, which is necessary if she is to carry her research work further. At the request of the association I was enabled to leave my school and to accompany Dr. Montessori as translator. The reception given Dr. Montessori is described by Marian Fairchild in an article in the January number of "Freedom for the Child," as follows:

> Dr. Montessori's intuition that it was the psychological moment for coming to America has been amply justified; in every place where the lectures were given the hall was filled; everywhere there was the spontaneous rising of the whole audience to greet her. It was a great and inspiring sight—the welcome given this friend of little children, and it came not because she brings us something new, for truth is never new, but because what she brings is old, is something we have felt in our own hearts and minds, and she stood before us, the interpreter to us, of our own inspirations.

Of this welcome Dr. Montessori herself said:

> Often as I faced one of those great audiences and caught the look of searching interest in the faces before me, I felt myself in the presence of something greater than my work. It seemed to me as if the spirit of the future came forward to meet me, to take my work into its hands and to carry my ideals forward to a beauty beyond the power of my own vision.

Dr. Montessori sailed for Italy December 24, and partly as a consequence of the renewed interest excited in the United States a new international class at Rome was announced. In this course, which lasted from the 23d of February to the 30th of June, 15 different countries were represented. In spite of the fact of a very late announcement, 45 American students were enrolled.

A history of the schools directed by students of Dr. Montessori would probably indicate more clearly than anything else the measure in which we are ready for the experimental, scientific attitude toward education. Almost inevitably there must be a compromise from two sides; compromise from the side of the teacher, who being herself the product of an earlier phase of educational progress, must in many cases pass through a species of intellectual rebirth in order to acquire the scientific spirit. To quote Dr. Montessori:

> We wish to awaken in the mind and heart of the educator an interest in natural phenomena to such a degree that, loving nature, he shall understand the anxious and expectant attitude of one who has prepared an experiment and who awaits a revelation from it.

And again, endeavoring to make clear the fact that what she gives is a working basis, not a neat, compact, complete machine, she says:

> To put it broadly, it is important to define the method (of research), the technique, and from its application to await the definite result, which must be gathered entirely from actual experience.

The degree of success, then, of a teacher using Dr. Montessori's method depends upon the extent to which she is prepared by temperament and experience to accept this scientific attitude. Certainly no one who comprehends the high task to which Dr. Montessori calls the teacher could possibly see in her "method" an immediate and simple substitute for existing methods.

In addition to the inevitable compromise of the ideal which must be made in greater or less degree by every teacher in this new system, there is the inevitable and perhaps more discouraging compromise forced upon the teacher in her endeavor to apply the "method of research" by parents and by the general public whose opportunity for a clear understanding has been, in most cases, more limited than that of the teacher. Very often this method, the mission of which is to reveal fresh facts and to build up a broader knowledge of the law whereby normal man develops, is interpreted as nothing more than a new and quicker way of obtaining the old timeworn results. In their view the developing life must express itself in terms of the tradition which custom has hallowed, or its progress is not approved, or perhaps it would be more fair to say, not recognized.

My own conclusion, after nearly five years of intensive study of the method and of broad association with the movement, is that the history of the Montessori movement in America is bound up with the social evolution of the country toward what Dr. Montessori describes as—

> the reign of peace in which there will arise the possibility of developing all the forces of life (biological liberty) * * *. In such a conception the individual organism depends more and more upon the social organism, just as the cells depend upon the multicellular organism; and we may almost conceive of a new living entity, a superorganism made up of humanity, but in which every component part is allowed the maximum expansion of its personal activity emancipated from all the obstacles that have been successively overcome. This conception of biological liberty, in other words the triumph of the free and peaceful development of life through the long series of more or less bitter struggles and defenses of life, constitutes, in my opinion, the very essence of the new pedagogy. And the evolution of modern thought and of the social environment can alone prepare for its advent at perhaps no distant date.

CHAPTER XVI.

EDUCATION FOR CHILD NURTURE AND HOME MAKING OUTSIDE OF SCHOOLS.

By Mrs. Frederic Schoff,

President National Congress of Mothers and Parent-Teacher Associations; Director Home Education Division, Bureau of Education.

Contents.—Parents and educators—Organizations promoting education in child nurture—Cooperation—Care of children before school age—Education of parents in infant hygiene—Cooperative plan for education of mothers in infant hygiene—Hospitals educate mothers—Helps for parents in moral training of children under school age—Mothers' clubs in kindergartens and primary classes—What some high schools have done in promotion of better homes—How one school enlists outside help in teaching—Home education extension work of normal schools and colleges—Colleges giving opportunities for study of child nurture and home making by parents—Work of women's clubs in better home making—Educational work of settlements.

PARENTS AS EDUCATORS.

Thirteen million children under school age depend exclusively on parents for their education, guidance, and care; while twenty million children in schools are under parental guidance and control for nearly six-sevenths of the time.

The functions of the home in its educational capacity therefore exceed that of the school; yet parents in most instances are without specific knowledge of infant hygiene, child nurture, and home making; of the nature of children, or of the methods that will bring the highest development of body, mind, and spirit.

With the most vital educational work of the world to do, opportunity for study of child nurture, child nature, and home making is necessary, and should be made possible for every parent. Such facilities for study of the different phases of child nurture and home making must be available in every community and for all the parents of the community, to be of real service. Parents can not journey away from home for this purpose; they must have their opportunities where they live. In view of the far-reaching importance of parental educational functions, there has as yet been no adequate provision for meeting intelligently the questions that daily confront fathers and mothers.

An investigation of the educational opportunities now open has been made by the Home Education Division of the Bureau of Education. This investigation covers the educational work done outside

of schools and relates to children before school age and to school children outside of school hours. It covers the extension work for education in home making and child nurture offered to parents by universities, colleges, normal schools, high schools, grade schools, and kindergartens. It also covers the educational work for parents by Government departments, by State boards of health, and by various organizations, together with the cooperative efforts of agencies in this field of education.

ORGANIZATIONS PROMOTING EDUCATION IN CHILD NURTURE.

At the present time educational work in child nurture and home making for the parents of the United States is in its infancy. The National Congress of Mothers and Parent-Teacher Associations, which covers the various phases of parental education, was incorporated in 1897. The Home Education Division of the Bureau of Education was established in 1913. The State boards of health in some of the larger cities are giving education in health and hygiene. The settlements are reaching the people in congested districts. A few of the universities and colleges are doing extension work covering phases of home education. Some churches are giving attention to the necessity for education in child nurture. Kindergartners have always recognized the necessity for it by establishment of mothers clubs in connection with the kindergarten. The United States Public Health Service and various bureaus in the Department of Agriculture, the Department of the Interior, and the Department of Labor publish educational bulletins dealing with this subject. School superintendents and principals cooperate in establishing parent-teacher associations. The Young Women's Christian Associations have worked for better homes, while visiting nurse associations and various local organizations have extended help to parents. The National Congress of Mothers and Parent-Teacher Associations devised the plan of a mothers' circle or parent-teacher association in every church and every school, reaching mothers and fathers of children before school age as well as during and after school age. Upwards of 500,000 parents have been brought together for study by the work of the congress, while teachers everywhere testify to the increased efficiency of the school resulting from intelligent cooperation with the home. With national offices in Washington, and branches in nearly all States, with a definite plan of education and organization, with cooperation with educational specialists, Government departments, universities, colleges, schools, boards of health, and other organizations, a machine valuable for transmission of education to the remotest districts has been formed. The cooperation of the Home Education Division of the Bureau of Education and the

National Congress of Mothers and Parent-Teacher Associations has brought many thousand letters from parents and teachers asking advice and help.

COOPERATION.

The National Congress of Mothers and Parent-Teacher Associations cooperates with the International Kindergarten Union and the National Kindergarten Association, which have done much for parental education. Mothers' clubs in connection with kindergartens, as well as the mothers' circles in connection with grade schools, are becoming a recognized auxiliary of every school. In these not only the material, but the spiritual problems of child life are dealt with.

It is recognized that the development of the inner life of the child, which rests principally with parents, is a department of study requiring far greater attention than it now receives; and that mistakes of parents through ignorance as to this inner life, as to the time and methods for its culture, cause results too serious to be ignored.

CARE OF CHILDREN BEFORE SCHOOL AGE—EDUCATION OF PARENTS IN INFANT HYGIENE.

The problem of saving children's lives by education of mothers in infant hygiene was effectively worked out by Dr. Miele, Ghent, Belgium, in 1905–6, by a comprehensive system of crèches, infant hospitals, milk depots, and schools for mothers, where girls and women were so trained in child care that the death rate of infants fell from 350 per 1,000 to 40 per 1,000. Paris carried the help to mothers still further, adding to the teaching idea by establishing restaurants for nursing mothers, that by proper food they might retain the power to nurse their babies, multiplying the child's possibilities of life. London followed in 1907 by establishing 38 schools for mothers, with object lessons in the care of the baby.

COOPERATIVE PLAN FOR EDUCATION OF MOTHERS IN INFANT HYGIENE.

In 1908 the National Congress of Mothers conducted an experiment in one district of Philadelphia for educating mothers in care of the baby by which the death rate was reduced 58 per cent. The board of education gave the use of school buildings, the board of health furnished names of all mothers of babies in the district, and the Congress of Mothers provided trained nurses and physicians, conducting weekly classes for examination of infants and education as to their care. This form of education is available for mothers in every village and town; it becomes possible to invite every mother of a baby to a class for mothers meeting after school hours.

In development of the plan for nation-wide education of mothers, the National Congress of Mothers wrote to every board of health in the United States, urging that a child hygiene department be established; that a parents' educational bureau be made a permanent feature of the work; and that to this bureau all mothers be invited for the purpose of studying all that conduces to the health of the baby and all that is injurious. This appeal resulted in the establishment of some child hygiene departments, but in many cases inability to secure sufficient appropriations have delayed this. The parents' educational bureau in Portland, Oreg., was established as a result of this plea, and has been supported by the Oregon branch of the congress, though given rooms in the courthouse.

Settlements, visiting nurse associations, and charitable organizations have promoted education of poor mothers in many cities, but the task of arousing every mother to the fact that instinct is not a safe guide in securing health and life for babies has made necessary a campaign of education showing that parental ignorance of infant hygiene is responsible for more than half the deaths of babies. The interest of physicians in saving babies led to the organization of the American Association for Prevention of Infant Mortality. The work of Nathan Straus in providing pure milk for babies before any general attention had been given to this subject has saved many lives. Federal and State authorities have issued valuable bulletins on the care of milk.

Indiana, by special act of legislation, authorized the State board of health to publish an attractive cloth-bound book, containing full instructions as to the care of the baby. The Indiana Mothers Baby Book is sent to every mother in Indiana on registration of the baby's birth. This book substantially bound will be of more permanent help than the paper bulletins usually published.

The North Carolina State Board of Health publishes a pamphlet on the care of the baby, which is sent to every mother, with a letter from the governor, on the registration of the baby's birth.

New York State Board of Health issues a booklet on "Your Baby; How to Keep It Well," which is sent to each mother on receipt of the birth certificate. It is also distributed at infant welfare stations and at city and county fairs. The first edition was 100,000 copies.

Idaho, Virginia, and Utah also send a booklet on receipt of birth certificates.

Thirteen State boards of health report that special bulletins on the care of the baby are distributed to parents upon request.

The Indiana Health Board publishes in 40 newspapers every bulletin it issues, and in that way makes known to parents that this literature is at their disposal.

The Pennsylvania State Board of Health publishes its baby bulletins in five languages and does considerable exhibit work in communities throughout the State.

Reports of the circulation of 532,000 bulletins on "Care of Baby" in 1914 have come to the Home Education Division. This is, of course, but a small percentage of what has been distributed by the many agencies now interested in promoting education in infant hygiene.

Interest of many fathers in rural districts has been aroused through the better babies examinations conducted at State fairs. Already interested in perfecting their live stock, the fact that in many cases their children fell below the standard of perfect development led them to study more carefully the conditions that are favorable to infant development.

HOSPITALS EDUCATE MOTHERS.

Hospitals in many cities are inviting mothers to weekly clinics where their babies are carefully examined and advice is given as to food, clothing, sleep, ventilation of rooms. No statistics as to the number of hospitals conducting clinics for mothers are available.

A campaign of education of citizens and taxpayers can alone educate public opinion to the necessity of making ample appropriations to boards of health in order that they may do their part in reducing the death rate of little children. In the last analysis childrens' lives depend on mothers and only by education of all mothers can infants have a chance for life and health.

HELPS FOR PARENTS IN MORAL TRAINING OF CHILDREN UNDER SCHOOL AGE.

The International Kindergarten Union has given practical educational help to parents in giving them an understanding of the soul life of little children. Through valuable books covering this subject, by organization of mothers of little children for study, an educational work of inestimable value has been conducted. Churches and Sunday schools are realizing that a large part of the responsibility for moral education rests with parents and parents' associations are being organized in many churches to make a study of parents' duties and to determine how parents may most effectively guide the child into moral habits.

MOTHERS' CLUBS IN KINDERGARTENS AND PRIMARY CLASSES.

The mothers' clubs in connection with kindergartens have given valuable educational help to parents in the guidance of little children. This instruction has given a different point of view and a fuller

conception of parental duty to thousands of parents. The mothers' club as a parental educational auxiliary of the kindergarten may be regarded as the inauguration of the movement for the education of mothers in child nurture.

As the child advanced beyond the kindergarten the mothers found no continuation of opportunities for child study except from personal experience and observation, until mothers' circles and parent-teacher associations began to be organized in connection with schools of all grades, with the purpose of extending parental opportunities for child study and home making all through the life of the child.

WHAT SOME HIGH SCHOOLS HAVE DONE IN PROMOTION OF BETTER HOMES.

In response to a letter of inquiry as to what high schools were doing for parents and citizens, 2,167 replied that they were doing nothing; 511 had established parent-teacher associations for study of the problems of children of high-school age by parents and teachers; 567 high schools expressed the desire for information as to methods of reaching parents and help that might be given. Lantern-slide lectures and popular courses in cooking, sewing, hygiene, and sanitation were reported in a small proportion of schools. The opening of school libraries for the use of citizens is noted as one form of home education work in some schools. Testimony as to the benefit to many homes resulting from the school courses in cooking and household arts is given by many superintendents and principals.

HOW ONE SCHOOL ENLISTS OUTSIDE HELP IN TEACHING.

Fayette, Ohio, has a required course for all the senior girls, which will be of great value to their homes now and the homes which they will have in a few years. They visit all the business houses, where one of the firm explains facts they should know. They visit homes, read to the sick, prepare meals, tend babies, etc. They are learning baking from the best woman baker in the community. They are learning to clean a house from a woman who, although she has a large family, is noted for the neat appearance of her home. The girls have plain sewing and make their own commencement dresses at a minimum cost.

Succasunna, N. J., conducts home extension work by a township library managed by the pupils of the high school under supervision of the faculty. From the central branch located in the high school deposits of books are sustained in the other schools of the township, which are an exchange with the central branch. As the work is

done by the pupils all the money that is expended goes for the purchase of new books. The library is thus placed within the reach of every home in this rural township.

Goshen, Ind., has "Home Reading Circle Books." These are taken by the children and are governed by rules similar to those governing public libraries. About 75 homes are reached.

Coalinza, Cal., has a boys' club entitled "Knights of Valor," with a membership of 500 men and boys; a girls' club of over 100, and a parent order of 200 mothers, meeting monthly to discuss child welfare and school problems. The work has been very helpful in the home and has brought parents into a new and better conception of school work and deeper sympathy toward the teacher.

The principal of *Kindred, N. Dak.*, public schools called a meeting of the fathers of the school children to discuss with them matters that had a bearing on the welfare of their children. The greatest obstacles to the progress of the pupils were discussed. The chief of these were that children were permitted to be about at almost any hour of the night; that the parents set a bad example in failure to obey laws—particularly game laws and prohibition laws—and that children were frequently permitted to spend most of the night at dances. An immediate result was a mutual agreement among the fathers that each one would see that his own children were off the streets at dusk every evening. Another result was the adoption of a resolution by the school board prohibiting teachers and pupils from attending dances on evenings preceding school days.

Logan County high school, Colo., gives canning demonstrations, talks on home sanitation and home decoration, and sends the teacher in domestic science to rural schoolhouse meetings to take up and discuss the problems of the home; conducts a winter short course in which an expert seamstress is employed in a laboratory fitted up for sewing work. Any woman who desires to bring her work will receive such help as she needs. Women in this department are doing all kinds and varieties of sewing, from altering and making-over old garments to making and finishing tailored suits. A community welfare conference is planned with instructors furnished by the extension department of the University of Colorado. This course continues for six weeks. One hundred homes were reached last year. The *Poplarville (Miss.) agricultural high school* is making extension work the leading feature of the school. It is spreading the gospel of self-sustenance in urging that each farmer raise enough on his own farm to live on, without having to buy anything to eat. The teacher of domestic science is going into the homes, giving lessons in sanitation, home decoration, and cooking wherever she is invited

to do so. Invitations are so numerous now that it keeps some one in the field nearly all the time.

Newberg (Oreg.) high school conducts a class in domestic science for the mothers, who meet once a week, and enrolls about 30 women outside the school.

In *New Haven, Conn.*, a modern workman's house built by a civic federation was used during the year for the teaching of cooking and sewing. This was turned over to the board of education and assigned to the trade instruction department. Definite periods of instruction in cooking, sewing, and household work are open for residents of the district.

Madison, Minn., has a short course in home economics open to mothers. Sanitation, cooking, and home decoration are taken up.

Ashley, Ind., devoted time to study of home conditions and home problems, enlisting the girls and their parents in this study.

Fort Scott, Kans., tries to raise the musical tone of the community and conducts a lyceum course.

Saginaw, Mich., opens its school Sunday afternoons for talks to parents by the medical supervisor.

Ericson, Nebr., reports 60 families affected by home extension work.

Ontario, Cal., has evening classes in home making and other subjects, reaching many young people and elderly people.

Athens, Ga., High and Industrial School conducts a six weeks' course each winter for mothers or housekeepers and domestic help. The course consists of two lessons per week, two hours each. A lecture of 45 minutes' length and a practical demonstration in cooking are given at each lesson. Certificates are given for completion of a three years' course in this department. Last year 45 housekeepers and domestic workers received these certificates. Some of the lectures are on the following subjects: "Prevention and care of diseases;" "Sanitation—household and community;" "Foods and food values;" "The fly;" "How to beautify the home;" "Home gardening;" "Crime—its causes—its remedy."

Moose Lake, Minn., high school gives a series of lectures and demonstrations on household economics, attended by 50 women.

Greenwood, Va., high school invites the housewives to visit the domestic science department and has a series of weekly lectures on the sciences touching the home.

Red Lion, Pa., high school opens its library two evenings a week, under the supervision of one of the instructors. Here pupils and their parents may come to read or discuss problems arising from the child's school life. The ultimate aim is to make people realize the value of a public library.

Hood River, Oreg., has meetings of the parent-teacher association every two weeks. These are very deeply affecting the community; they are the best attended meetings of any kind held in this community. They affect about 100 families.

Warner, Okla., has opened school for adults at night. The domestic science teacher visits homes. A paper is sent out every two weeks, with helpful hints to the housewife, and 300 homes are reached.

Rockland, Wash., maintains a magazine exchange system of standard magazines, reaching many homes. Lists of the best books are sent out stating they may be borrowed from the high school library. This has doubled the use of the library.

Towanda, Kans., opened its classes in domestic science to all women, and found them very popular courses.

Rosenberg, Tex., has a parent-teacher association which has done much for both home and school. Approximately 60 homes were affected directly last year, and the whole community indirectly.

Kioma, Okla., has a strong mothers' club in connection with the school. Magazines and newspapers are collected for homes that have no reading matter. They are read, returned, and loaned again.

In *Mart, Tex.*, a parent-teacher club has been organized which affects about 50 or 60 homes. A debating society affects 25 or 30 homes. Meetings of both of these are held in the school building.

In *Knoxville, Tenn.*, the Park City High School has a large mothers' associations that is doing a great work.

HOME EDUCATION EXTENSION WORK OF NORMAL SCHOOLS AND COLLEGES.

Reports received from 125 normal schools show that 16 of these are doing extension work in home making, while 109 are doing nothing outside the school.

The Rochester Normal Training School has a trained nurse, and last year reached 185 homes by inviting the mothers to meet in the school for instruction in washing and caring for the baby.

The Teachers College of Indianapolis reaches the mothers by inviting all the mothers of children in free kindergartens to meet in the different kindergarten buildings, where regular outlined talks are given upon the responsibilities and preparation for parenthood, suggestions and observations of child psychology made, including instincts, intuitions, and interests of children, and home economics.

Other normal schools have extension lecture courses which reach many parents.

The National Kindergarten College, Chicago, Ill., has a course of 12 lectures in a mothers' course each year. It also has 12 lectures on mental development of children, and 18 lectures on physical devel-

opment of children. The 18 lectures on maternal efficiency given to students and to mothers deal in alternate years with hygiene, sanitation, contagious diseases, the development of the child after birth, and eugenics. Extension courses are given in 56 welfare stations conducted by the Chicago Woman's Club. The college also cooperates with numerous graduates who hold mothers' meetings in their kindergartens. Two hundred lectures on the mental and spiritual training of the child are to be given at these stations this year by the faculty and alumni of the college.

COLLEGES GIVING OPPORTUNITIES FOR STUDY OF CHILD NURTURE AND HOME MAKING BY PARENTS.

The following are typical instances of the work done by colleges and universities in this field:

University of Vermont, Burlington, Vt.—Extension courses in home economics are given, and there are lectures by medical faculty.

Temple University, Philadelphia, Pa.—Weekly clinics are conducted on care of children.

Clark University, Worcester, Mass.—The child study institute makes possible the study of every phase of child development.

University of Nevada, Reno, Nev.—A field demonstrator is employed for extension work in child nurture and home making. Three hundred homes were reached last year. There has been increased effort in organizing home economics clubs of girls and women in rural districts.

University of Nebraska, Lincoln, Nebr.—The courses in child study and adolescence have been opened to any one desiring them. Bulletins on health are issued.

University of Oklahoma, Norman, Okla.—Courses for parenthood are given, including correspondence courses in eugenics; and special bulletins are issued. Forty-five traveling libraries containing books on child nurture and home making are in operation. The extension work included 400 lectures last year, and 1,041 debating clubs were organized for the discussion of public questions.

University of Montana, Missoula, Mont.—The home economics department reaches 20 communities, cooperating with mothers' clubs and parent-teacher associations in a number of interesting studies.

St. Lawrence University, Canton, N. Y.—One-year's course for home makers, including infant feeding and dietetic work.

University of Wisconsin, Madison, Wis.—Correspondence course in home economics.

Cornell University, Ithaca, N. Y.—About 30,000 homes reached by extension lectures on domestic science and care of children.

University of Illinois, Urbana, Ill.—One-week schools are held throughout the State for adult women; 1,000 homes were reached last year.

University of Colorado, Boulder, Colo.—About 1,000 mothers have attended the lectures on child psychology and hygience. The Colorado Congress of Mothers helps in promoting extension of the social and home service.

University of Maine, Orono, Me.—Lectures on home making in an extension course.

State College of Washington, Pullman, Wash.—Extension lectures on childhood, adolescence, dietetics, and home management.

University of Denver, University Park, Colo.—Forty-five mothers are taking a course in child study, health, and home making. Extension courses in home making are offered to Colorado towns. Reading courses by correspondence are offered to parents.

Ripon College, Ripon, Wis.—Extension courses by lectures and institutes have reached 1,000 homes. Work connects with religious education and lays great stress on the home as an agent of child nurture.

New Mexico Normal University, East Las Vegas, N. Mex.—Short course in child study. Courses are planned in physical and mental development of children. Extension work has been done in various sections of the State. The endeavor has been to create an interest in home making and child nurture with a view to organizing classes in these subjects later.

University of Pittsburgh, Pittsburgh, Pa.—The school of education gives a course in the home care and training of children. Extension courses in home making and child nurture are given at different centers. It is planned to multiply courses and educate outlying committees.

University of Michigan, Ann Arbor, Mich.—Extension courses in home making and child nurture through lectures given to parent-teacher associations and other organizations interested in home welfare. Three to five thousand homes were reached last year.

Leland Stanford Junior University, Stanford University, Cal.—Members of the department of education lecture before parent-teacher associations and mothers' clubs on home making and child nurture. Three or four hundred homes were reached last year.

Winthrop Normal and Industrial College, Rockhill, S. C.—One person employed to give lectures on home making and child nurture. Bulletins are issued on care of the baby and other problems of the home.

State University of Iowa, Iowa City, Iowa.—A child welfare station has been organized which provides for cooperation of the departments of medicine, dentistry, home economics, sociology, education, and psychology to be primarily an institute for research.

Ohio University, Athens, Ohio.—Thirty communities are reached in extension lectures on home making and child nurture.

WORK OF WOMEN'S CLUBS IN BETTER HOME MAKING.

Many women's clubs in the United States have given earnest effort to education in household arts and domestic science. Many domestic science clubs have been formed for study of cooking, food values, and sanitation. These clubs include in their membership young girls and married women, and indicate an increasing desire for systematic scientific methods in the physical side of home making.

The Chicago Woman's Club conducts 50 welfare stations in which 200 lectures on the mental and spiritual training of the child are to be given by the faculty and alumnæ of the national kindergarten college. In addition to these 200 medical lectures, 200 lectures on domestic science will be given.

The women's clubs have in many places secured the introduction of domestic science courses in schools.

Classes for instruction in household arts are conducted in the various branches of the Young Women's Christian Association. Mothers' meetings for instruction of mothers are also a part of the work of the Young Women's Christian Association.

EDUCATIONAL WORK OF SETTLEMENTS.

It is estimated that in the United States some 6,000 settlements have been established in poor neighborhoods and congested districts to improve conditions through example and education. Teaching home making under tenement conditions is an important feature of these settlements. In 1897 there were 74 settlements listed; in 1905 204; in 1911, 5,158.

These settlements are conducted by universities, colleges, women's clubs, associations of collegiate alumnæ, King's Daughters, visiting nurse associations, and similar organizations; by gifts of individuals, with trustees in charge; or by religious bodies, which include the Baptist, Catholic, Congregational, Episcopal, Ethical Culture, Friends, Hebrews, Methodist, Presbyterian, Swedenborgian, and Unitarian denominations, and by nonsectarian yet religious bodies.

The educational agencies established in these districts are many. Among them are kindergartens, classes in care of babies, sewing, cooking, household arts, nursing, elementary vocational and cultural subjects. The benefits of instruction are extended to men, women, and children.

CHAPTER XVII.

PROFESSIONAL ART SCHOOLS.

By Florence N. Levy,
Editor "American Art Annual," New York City.

Contents.—History of the movement—Management—Academic schools—Schools of design—Industrial art schools—Schools of architecture—Normal art schools—Art courses in colleges and universities—Conclusion—List of art schools classified as to management—Classified by subjects—Art school statistics.

Professional art schools may be divided into the following classes: (1) Academic, where drawing, painting, and sculpture alone are taught; (2) schools of design, where, in addition to the academic branches, applied design is the principal subject, with craft classes frequently included; (3) industrial art schools, with workshops; (4) schools of architecture; (5) normal art schools; (6) colleges and universities giving instruction in drawing and history of art. In a brief review, such as is contemplated in this chapter, it is impossible to describe every one of the 216 art schools that exist in the United States. The general characteristics of each type are, however, indicated; and under industrial art the schools offering special courses are listed. At the end of the chapter the schools are entered under the five headings, with indications regarding evening and summer schools.

HISTORY OF THE MOVEMENT.

During the eighteenth century any citizen of the American colonies who wanted to learn how to paint was obliged to go to Europe, and the success of Benjamin West, born in Pennsylvania in 1738, led many young Americans to follow him to London. Munich and Dusseldorf attracted many students in the middle of the nineteenth century, while Paris has been the Mecca of a host of artists for the past 50 or 60 years.

During the period when many ambitious painters and sculptors were finding their way to European art schools, art was beginning to take root in the United States. As far back as 1791 Charles Willson Peale tried to found an art school in Philadelphia. He was not successful, but his attempt led in 1805 to the establishment of the Pennsylvania Academy of the Fine Arts, the oldest art institution in the country. The school of the National Academy of Design, New York,

dates from 1826 (following several years of desultory work), and 1844 saw the establishment of the Philadelphia School of Design for Women. In 1857 Cooper Union was opened, with a free day school of art for women and evening classes in drawing for men; the Yale School of Fine Arts was organized in 1864; the School of the Art Institute of Chicago is a direct continuation of the old Academy of Design founded in that city in 1867; the Massachusetts Normal Art School was established in 1873; the Art Students' League of New York was organized in 1875.

The Centennial Exposition at Philadelphia in 1876 led to increased interest in art and in art education. The direct outcome was the incorporation of the Pennsylvania Museum and School of Industrial Art in 1876, followed the same year by the School of the Boston Museum of Fine Arts, and in 1879 by the St. Louis School of Fine Arts. The movement spread rapidly, and art schools were organized in the smaller eastern cities and the larger cities throughout the Middle West. The Columbian Exposition at Chicago in 1893 and the Louisiana Purchase Exposition at St. Louis in 1904 gave impetus to the movement. The Panama-Pacific Exposition at San Francisco in 1915 is expected to bring about a similar awakening on the Pacific coast; Los Angeles at one extreme and Portland, Oreg., at the other, already have well-established art schools. October, 1914, witnessed the opening of the Stickney Memorial Art School at Pasadena, Cal.

MANAGEMENT.

The schools are managed in various ways, either as parts of larger organizations or as independent units. The list at the end of this chapter shows their affiliation: (1) Affiliated with art museums; (2) affiliated with art societies; (3) endowed independent art schools, sometimes partly supported by public funds; (4) cooperative; (5) independent art schools maintained by city or State funds only; (6) department of institutions of higher education—university, college, or departmental institution; (7) private enterprises.[1]

In the art museums the director of the museum is usually principal of the school, with a head of each department responsible for the development of a particular phase of work, and a corps of teachers dividing their time between the different departments. The same division of work exists in all the large schools. At the other extreme are the private schools with only one instructor, and perhaps a visiting teacher.

The management of the Art Students' League of New York is unique. Its affairs are administered by a board of control, the majority of whom are students actually at work in the classes. It is entirely self-supporting, having no endowment fund, and has for over

[1] See p. 388.

a quarter of a century been run entirely by the tuition fees. The instructors have always been artists of standing. An annual competition for scholarships, open to all art students in the United States and Canada, exclusive of New York City, is held in March of each year. Ten scholarships are awarded, which entitle the recipients to free tuition in any two classes of the league during the following season. The winners in 1914 included three from Buffalo, N. Y.; two from San Francisco, Cal.; one each from Syracuse, N. Y.; St. Paul, Minn.; Washington, D. C.; Boston, Mass.; Cincinnati, Ohio; Denver, Colo.

Many of the art societies maintain classes. Some have fully organized schools; others conduct sketch classes two or three times a week for the benefit of members; and others have evening classes. The chief work of most of the architectural clubs is the maintenance of evening "ateliers," where under the direction of a "patron" the students work out the problems arranged by the Society of Beaux-Arts Architects. In universities and colleges maintaining separate art departments, instruction is usually under the direction of the head professor of the department, with a corps of instructors under him; in addition the students have the privilege of other courses in the university.

1. ACADEMIC SCHOOLS.[1]

The courses of instruction in the academic schools are divided into departments of drawing and painting, of sculpture, and of illustration. In each of these departments there is certain prescribed work that must be done, but the departments are closely allied, the advanced students in each being advised to work in the others. The general method of instruction is by criticism of the work done, but the individuality of the student is not repressed by fixed methods. The aim is to help the student to observe accurately and record truthfully what he sees and as he sees it.

In order that students who have had little or no training in drawing may pursue their studies under the easiest conditions and advance naturally to higher work, a preparatory antique course is conducted, which includes drawing from casts of classical sculpture, drawing and painting from still life, and lectures upon composition, perspective, and anatomy. For admission to the antique course, drawings or sketches from the solid object in any medium are required, and applicants may prepare these in the schoolrooms or forward examples made for the purpose.

Classes in drawing and painting.—Work includes drawing and painting from the human figure, drawing and painting from the head, and from still life; also lectures upon composition, perspec-

[1] This description is based on the announcement of the Pennsylvania Academy of the Fine Arts.

tive, and anatomy. Students are admitted to the life and head classes after an examination of their work in drawing from the full length figure, either antique or life. The class in composition is to encourage the student to express his impressions and conceptions. The class meets from week to week to exhibit its work for comparison and open discussion. Mural decoration is given special attention; a subject with definite requirements is offered, and whenever possible students are given an opportunity to decorate a wall space.

Lectures on anatomy are open to students of any course without extra charge. They are frequently illustrated with the stereopticon, with drawings made in the presence of the class by the instructor, and also by means of the living model. Lectures on perspective are open to students of any course without extra charge. The course consists in lectures upon the elements of linear perspective, illustrated by drawings made before the class; exercises upon the same subject and sketching from the solid object and from nature, and in the application of the knowledge thus gained to illustration and painting. The way in which artists of various schools have used the principles of perspective is demonstrated by lantern projections of their works.

Classes in illustration.—These provide such practical instruction for the students as will enable them, upon the completion of the course, to enter immediately the professional field of magazine and book illustrating, decoration, and newspaper work. Instruction is given in drawing, in composition, and in the technique of all mediums— pen, charcoal, black and white, tempera, and oil. There is special work from still life—drapery, furniture and interiors, flowers and foliage; mechanical and free-hand perspective; historic costume; decorative lettering; anatomy; original composition for bookplates, head and tailpieces, initial letters, titles, posters and general decorative illustration. In addition to the regular class work, lectures are given during the year by practical specialists upon the various processes of reproduction for the purpose of printing, and students are instructed to work with the particular process in view that is to be employed in reproducing their illustration. Practically all the academic schools have courses in illustration. Etching is taught in a few schools, notably at the National Academy of Design and at the Art Students' League, both in New York.

Classes in sculpture.—The work consists of modeling from the living model, generally in the round, but occasionally in relief, and from both the full-length figure and the head only. In addition to the work from life, each student is required to present sketch models of sculptural themes, on which he receives individual criticism. Special facilities for the study of sculpture are offered in the following schools:

Baltimore, Md.—Rinehart School of Sculpture; endowed.
Cleveland, Ohio.—Cleveland School of Art; separate well-equipped studio.
Edgartown, Mass.—Summer school.
New York, N. Y.—Sculpture studio; maintained by the Society of Beaux Arts Architects and the National Sculpture Society (special emphasis is placed on decorative sculpture as related to architecture).
Ogunquit, Me.—Summer School of Modeling.
Philadelphia, Pa.—Pennsylvania Academy of the Fine Arts (special prizes and scholarships are offered).

Tuition fees in the academic schools average $100 for the season of eight months. Numerous free scholarships and prizes are open for competition. The most important are those offered by the American Academy in Rome each year to one painter, one sculptor, and one architect. This scholarship entitles the winner to $1,000 a year for three years and residence at the school in Rome. The Pennsylvania Academy of the Fine Arts makes numerous awards from the income of the Cresson scholarship fund; 16 pupils were given $500 each in 1913 for European travel. Prizes for meritorious work range from $300 down to $10, and are given more or less liberally in every school.

Saturday morning classes for children are maintained by many of the schools.

The summer schools offer special facilities for landscape painting, and their normal departments are particularly active during the period of school vacation.

2. SCHOOLS OF DESIGN.

The drawn line rules the world, for with it are written in the language of form the laws of the fine and industrial arts. This universal language of form is the tongue of the genius of modern productiveness—not a phonetic, but a pictorial tongue—and hundreds of millions depend upon its utterances for their daily bread. To set up a modern locomotive requires 68 separate scale drawings, showing every bolt in place; these are multiplied three or four times for the shop. It is the same with the guns, great and small, with which we destroy our fellows scientifically and with all the complex enginery of war—fortifications, ordnance material, magazines, barracks, maps, and material of transportation—each of which is born on paper.

Thus wrote the late Col. Charles William Larned, professor of drawing at the West Point Military Academy.

On the other hand, Arthur W. Dow, director of the department of fine arts of Teachers College, Columbia University, New York, emphasizes the value of the "design method," in opposition to the traditional "drawing method" of teaching art. In an address before the Western Drawing and Manual Training Teachers' Association, May, 1912, he said:

The drawing method is analytic, dealing with the small, the details, the application of art; the design method is synthetic, dealing with wholes, unities, principles of art. The theory of the design method can be put into a single phrase: First, study

the art, then apply it. * * * The problem is how to teach art so that all may share it; how to relate it to new demands and new thought in education. I believe that what I call the design method is equal to every condition, because it is built on an inherent human desire for choosing the fine—the desire to make something look well, whether the work be a machine or a painting. This aim brings order out of anarchy; it gives a definite reason for drawing from nature, for studying arrangement, proportion, tone, and color.

Courses in design include the general principles of composition, line harmony, spacing, proportion, rhythm, dark-and-light values; color in theory and practice; exercises with brush and ink, charcoal, colored crayons, and water color. The courses include the study, analysis, and rendering of historic ornament—Byzantine, Romanesque, Saracenic, Gothic, Renaissance, and modern styles; plants, flowers, birds, and animals from nature for decorative application. Original designs are made for stencils, for oilcloth and linoleum, lace and curtains, carpets and rugs, embroidery, chintzes, silks, cretonnes, and prints, stained glass and mosaic, and leather work.

Many of the schools of design offer ample facilities for carrying out work from the design in what are generally known as the crafts. These crafts—or, more properly, handicrafts—are distinguished from the industries by requiring less mechanical equipment and more handwork. They include courses in jewelry, metal work, bookbinding, etc. The following special courses given in schools of design depend entirely upon design adequately rendered:

Costume design and costume illustration.—A study of design as applied to costume with technical training in pencil, pen and ink, charcoal, and blackboard drawing; sketching of gowns and hats. Courses are adapted for professional designers of costume, for teachers of costume design, and for teachers of household arts. Costume illustration aims only to render the design with such technical excellence that it will be available for reproduction.

Illustration for commercial purposes.—Lettering, poster work, planning of window cards, letter heads, and sign painting. A special class for color printing was established at Teachers College of Columbia University, New York, in 1914.

Interior decoration.—The subjects studied are: Historic ornament in its application to original schemes for interior decoration; harmony and contrast of color; modeling of ornament; water-color rendering; original designs and working drawings for furniture, woodwork, hangings, mosaic, stained glass; the making of stencils; drawing from the cast and life; library research under direction; the application of studies from nature to practical use and the constant consideration of the principles of decorative fitness.

3. INDUSTRIAL ART SCHOOLS.

The close relation between art and industry, and the dependence of industry upon art, were scarcely appreciated by the majority of educators in this country in the first half of the nineteenth century. As for the manufacturers, they were content, apparently, with using foreign workmen as designers or stealing patterns from imported samples, and perhaps working the designs over somewhat. The

Centennial Exposition brought directly to the attention of both producer and consumer the fact that the United States was far behind other nations in the quality of its manufactures. The public had an opportunity to see the best work from France, Germany, Great Britain, Russia, and other countries, and there was a genuine awakening to our shortcomings.

Isaac Edwards Clarke, in his report on "Art and Industrial Education" for the United States Commission to the Paris Exposition in 1900, said:

> The industries and arts of a people are determined by their needs, their desires, and their intelligence. So long as individuals and communities have never seen the added attractions given to buildings, furniture, clothing, and household implements by the application of art to such articles of prime necessity, so long there is no demand for the production of similar artistic articles; but let once their eyes be opened by a sight of the wonders of a world's fair or an art loan collection and immediately the demand is created.

Great Britain was aroused by the Crystal Palace Exhibition of 1851 at Hyde Park, London, the first of the great "world fairs," to a realization that her artisans lacked skill, taste, and artistic training. This led to the immediate reorganization of the Government School of Design under the name of the South Kensington School of Art and Design. At present the vast Victoria and Albert Memorial Museum at South Kensington, London, with its school housed in an adjoining building, is the heart of an extensive system of industrial art education which includes schools and local museums in every city of any importance in the United Kingdom.

Just as in industrial education a distinction is made between a trade school and a technical industrial school, so also among art schools there is a distinct difference between the school of design which does not offer opportunities for direct application of the design to manufacture and the fully equipped industrial art school with its building devoted to one or more phases of art applied to industry. In the latter the pupils can carry the work through the various steps from the first sketch, the carefully executed design, the numerous working drawings, the making of the object, and on to the salesroom. Between these two extremes are the schools where facilities are offered for carrying out from the design what are generally known as the crafts. A few public high schools are now offering vocational training along industrial art lines; a notable example is the Washington Irving High School, in New York City, where the girls may specialize in costume illustration or commercial design. The New York Evening Industrial Art School has recently been organized as part of the public school system. Some of the best instruction is secured through schools maintained by the manufacturers in their factories, but little information is available regarding these apprentice schools.

Fees and hours.—The day industrial art schools are usually in session from 9 to 4; tuition for a full course varies from $75 to $150 for a year of eight months—October to June. To students from foreign countries the rate is about double. Evening classes are maintained from 7.30 to 9.30, and the tuition averages $15 for six months—October to April. Saturday classes, 9 to 12 a. m., are given in nearly all branches of art pursued in the regular day classes, with the addition of lectures on methods of teaching and on art history; tuition about $10 for six months.

Applicants for admission to the industrial art schools must have a knowledge of common English branches and of drawing equal to the completion of the ordinary grammar-school grades.

Scholarships offered at the Pennsylvania School of Industrial Art include at least one scholarship from each county of the State, entitling the holder to free tuition in any regular course of the school for three years. The board of education of the city of Philadelphia also provides free instruction in the school. Pupils of the high schools, as well as of the Normal School and of the Public Industrial Art School, are eligible for these appointments, application for which must be made to the principals of the several schools. A certain number of free scholarships are provided through special gift and bequests to the school; in all, some 200 free scholarships are available. At the Rhode Island School of Design the State provides a number of scholarships in the day school and the city furnishes scholarships for the evening and Saturday classes. The New England Manufacturing Jewelers and Silversmiths' Association, the State Federation of Women's Clubs, and various other organizations and individuals also give scholarships in this school. Similar privileges can be secured at other schools for a limited number of worthy students.

Courses in these industrial art schools are based upon thorough training in design adapted to special materials. Courses of study in the various branches, and the schools offering these courses, are as follows:[1]

Bookbinding and leather work—The course includes sewing, forwarding, finishing, and library binding; cased books with stiff boards and with flexible boards; laced-in boards; half leather and full leather; blind tooling; portfolios; wall and furniture panels from original designs. The study of good examples of bookbinding is emphasized. Classes in bookbinding are maintained in the following schools:

Minneapolis, Minn.—Handicraft Guild.
Philadelphia, Pa.—Pennsylvania School of Industrial Art.
St. Louis, Mo.—School of Fine Arts.
Worcester, Mass.—Art Museum School.

Ceramics.—The pupils study the chemistry of clays and colored bodies, with special reference to the production of artistic forms and decoration in relief or intaglio; the construction of pottery, either built up or turned; and the execution and firing of

[1] Based on the announcement of the Pennsylvania School of Industrial Art.

the finished work from their original designs, for garden vases, tiles, jardinières, decorative tablets, etc. There is a kiln and all necessary equipment. There is a special building for this department at the Pennsylvania School of Industrial Art, and its museum is particularly rich in specimens of pottery and porcelain.

China painting is offered in several of the schools of design which do not have technical courses in ceramics. Professional courses are given, as follows:

Alfred, N. Y.—New York State School of Clay Working and Ceramics.
Minneapolis, Minn.—Handicraft Guild.
New Orleans, La.—Newcomb College, Tulane University.
New York, N. Y.—Columbia University, department of fine arts of Teachers College.
Norwich, Conn.—Norwich Free Academy.
Philadelphia, Pa.—Pennsylvania School of Industrial Art.
Rochester, N. Y.—Mechanics Institute, school of applied and fine arts.
Trenton, N. J.—School of Industrial Art.
Urbana, Ill.—University of Illinois, school of ceramics.
Worcester, Mass.—Art Museum School.

Gilding.—A revival of the Florentine and Sienese craft of gold laying and enameling for use on picture frames, panels, illumination, boxes and other objects.

New York, N. Y.—Columbia University, department of fine arts of Teachers College; New York School of Applied Design for Women.

Jewelry.—Instruction includes polishing and finishing of metals; coloring by chemical and electrolytic methods; the setting of stones; casting of silver. Design is considered in the problem of the making of buckles, fobs, chains, necklaces, pendants, rings, etc. Courses are offered in the following schools:

Minneapolis, Minn.—Handicraft Guild.
Newark, N. J.—Fawcett Industrial School (evening school only); Newark Technical School.
New York, N. Y.—Columbia University, department of fine arts of Teachers College; New York School of Fine and Applied Arts; Pratt Institute, department of fine and applied arts.
Philadelphia, Pa.—Pennsylvania School of Industrial Art.
Providence, R. I.—Rhode Island School of Design (a part-time apprenticeship course is also offered which calls for 9 hours' instruction a week and extends over 3 years).
Rochester, N. Y.—Mechanics Institute, department of applied and fine art.
Trenton, N. J.—School of Industrial Art.
Worcester, Mass.—Art Museum School.

Metal work.—Instruction in the use of the different metals—gold, silver, German silver, copper, brass, and iron; technical processes, such as hammering, hard and soft soldering, etching, repoussé, finishing, coloring, and enameling; forge work includes drawing, welding, tempering, setting of dies, etc. Tools are made and practical work undertaken, such as bowls, plates, candlesticks, cups, jewel caskets, buckles, clasps, trays, lamp stands and shades, grilles, weather vanes, hinges, doorplates, and other architectural hardware, etc., all from original designs. Courses are offered in the following schools:

Cincinnati, Ohio.—Ohio Mechanics Institute.
Minneapolis, Minn.—Handicraft Guild.
Monhegan, Me.—Summer School of Metal Work.
Newark, N. J.—Newark Technical School.
New York, N. Y.—Columbia University, department of fine arts of Teachers College; Pratt Institute.
Norwich, Conn.—Norwich Free Academy.
Philadelphia, Pa.—Pennsylvania School of Industrial Art.
Providence, R. I.—Rhode Island School of Design.
Trenton, N. J.—School of Industrial Art.

Modeling for architecture.—The students model in different degrees of relief and in the round ornament of various styles, studies of the human figures and of animal from nature, casts, and prints. Original designs are made in clay, wax, and plasters for terra cotta and architectural ornament, for concrete, for cast and wrought metal, for wood and stone carving, for furniture and mosaic. The execution from the design of furniture, pottery, and mosaic are essential parts of the course; and some decorative application to an important subject, such as a foundation or wall panel, is made the final problem. Modeling is taught in nearly all the academic schools and in many of the other schools. The following schools give special attention to architectural requirements:

New York, N. Y.—Evening School of Industrial Arts; Sculpture Studio of the Society of Beaux-Arts Architects and National Sculpture Society.
Philadelphia, Pa.—Pennsylvania School of Industrial Art.
Providence, R. I.—Rhode Island School of Design.
Trenton, N. J.—School of Industrial Art.

Textile.—The curriculum includes the following departments: Design planned with special reference to the construction of fabrics and their decoration; color harmony and figured design; cotton, wool, worsted, and silk warp preparation and weaving; knitting; chemistry, dyeing, and printing; power weaving; textile engineering; finishing. The Lowell and New Bedford textile schools have developed from trade schools in contrast to the Pennsylvania School of Industrial Art which has developed from an academic art school. These three are the only textile schools.

Woodwork, carving, furniture.—The study of design in furniture; the detail drawing and construction of the same, involving the study of joinery, hand-wrought mouldings, and enrichment of surfaces by carving. The work is correlated with the courses in design and interior decoration. Special departments for woodworking are maintained as follows:

Cincinnati, Ohio.—Ohio Mechanics Institute.
New York, N. Y.—Columbia University, department of fine arts of Teachers College.
New York, N. Y.—Pratt Institute.
Philadelphia, Pa.—Pennsylvania School of Industrial Art.
Trenton, N. J.—School of Industrial Arts.

4. SCHOOLS OF ARCHITECTURE.

There is no independent school of architecture. The education of the architects is cared for in schools which are affiliated with the universities. Evening classes for draughtsmen are an important part of the work of the architectural clubs scattered throughout the country. Most of these are affiliated with the Society of Beaux-Arts Architects, which maintains its headquarters in New York City and sends its problems to ateliers in 83 cities.[1] The Paris prize established by this society sends a young man to Paris each year, with the privilege of attending the École des Beaux-Arts, and gives him $250 quarterly for two and a half years.

The education of the architect needs to be many-sided; there are scientific problems of engineering, material, and estimating, and artistic questions of design, ornament, interior decoration, including rendering the drawings and many working plans. In the universities a four years' course in the school of architecture leads to the degree of

[1] The list on page 394 contains only the ateliers with five or more students.

bachelor of architecture. It must usually be preceded by two years of scientific work in the college. More advanced study leads to the degrees of master of arts and doctor of philosophy. The fees in architectural schools average $200 for the term of eight months.

Schools of landscape architecture are of comparatively recent date in this country; they are closely connected with the departments of horticulture. Drawing and ability to render the design form part of the course. Institutions maintaining such schools are:

Ann Arbor, Mich.—University of Michigan.
Cambridge, Mass.—Harvard University.
Groton, Mass.—Lowthorpe School.
Ithaca, N. Y.—Cornell University.
Orono, Me.—University of Maine.

5. NORMAL ART SCHOOLS.[1]

From the founding of the first normal schools in the United States [2] some phase of art instruction has always been included in the course of study. The first normal art school was founded in 1873 by an act of the Legislature of the State of Massachusetts, and this is still the only State art school in the country and the only independent normal art school.

Admission.—Candidates must be over 16 years of age; they must present a certificate of moral character and a high-school diploma or its equivalent. In addition to this, there is a written examination in English, civil government, elementary botany, and physiology, as well as the test in drawing. Tuition is free to pupils whose parents reside within the State; tuition for students from other States is $50.

The Massachusetts Normal Art School is organized into 11 departments offering definite elective courses of four years' work. Instruction in all courses consists of studio and practical apprentice experience in educational and industrial establishments. The courses are:

I. Applied arts in public schools—presentation of applied art subjects in classroom and workshop. II. Applied design and interior decoration—general and specialized design and methods of application. III. Modeling and casting—appreciation of form and professional craftsmanship. IV. Graphic arts—technique and processes in illustrative, photographic, and printing arts. V. Drawing and painting—drawing and painting the figure. VI. Mechanical drafting—technique, design, and methods of shop drafting. VII. Architectural drafting—technique, construction, and methods of architectural and structural drafting. VIII. Iron working—technique and methods of iron working, forging, bench work, and machine-tool practice. IX. Woodworking—technique and methods of woodworking, turning, furniture, and cabinet work, pattern making, and carving. X. Metal work and jewelry—technique and methods of coppersmithing, silversmithing, enameling, and jewelry. XI. Costume illustration—technique, methods and combinations in costume illustration and production.

[1] Information in this section based on the announcement of the Massachusetts Normal Art School.
[2] West Newton, Bridgewater, and Westfield, Mass., 1839.

All other normal art schools are departments of schools of art or of normal schools. At the Art Institute of Chicago, Teachers College of Columbia University and Pratt Institute in New York, Pennsylvania School of Industrial Art in Philadelphia, and a few others the normal art department is separately organized, with a principal and a number of teachers. These schools have the benefit of giving instruction in general cultural branches, have an art museum affiliated with the school, and other advantages. The courses are similar to those of the Massachusetts Normal Art School.

In the normal schools, drawing is given sometimes for only two or three hours a week, while in others there are well-planned courses of as many as 20 hours a week for 36 weeks in the year, and other related studies are offered. Out of 199 schools with courses for training art teachers, 43 offer 10 hours a week or more of drawing and painting.[1] The summer courses in normal art are among the most important offered. They are indicated in the list at the end of this chapter.

6. ARTISTIC COURSES IN COLLEGES AND UNIVERSITIES.

A special study of the courses in history of art in universities and colleges was carried on by a committee of the Western Drawing and Manual Training Teachers Association. This committee in 1912 developed into the College Art Association, which has continued investigations along these lines. At the annual convention in December, 1913, the assertion of Prof. O. S. Tonks, of Vassar College, in a paper on "The Teaching of Art in the College," that technical work in drawing, painting, and modeling, had no place in the college course aroused much discussion. A majority of those present favored technical work as a laboratory process, supplementing the study of the theory, history, and philosophy of æsthetics. Prof. Arthur Pope, of Harvard University, gave a detailed and illustrated presentation of "Drawing and Painting in College Courses" as developed at Harvard, wherein he showed that the purpose of these courses was emphasized as cultural rather than professional and as comparable to methods of teaching English composition.

A pamphlet on the "Study of the History of Art in the Colleges and Universities of the United States" (published by Princeton University Press), was prepared by E. Baldwin Smith for the tenth International Congress of Art Historians, which met in Rome in October, 1912. Four hundred institutions were communicated with, and 95 of these gave art history, but only 68 adequately—that is, with a special chair in art history or archæology. The latest addition to this list

[1] See Education Bulletin, 1914, No. 13, "Present Status of Drawing and Art in the Elementary and Secondary Schools of the United States."

is Columbia University, to which $100,000 was bequeathed by Hugo Reisinger in 1914 to found a chair of art history.

Appreciation is a comparatively new development of the old historical method. The facts of names, dates, and periods can be found in books, but an appreciation of the æsthetic quality of a work can be gained much more readily through the spoken word. Art appreciation has for some years been treated as a special subject in the department of fine arts of Teachers College, Columbia University, New York. The only other colleges that list a similar course are Augustana College, Rock Island, Ill.; Denison University, Granville, Ohio; Ohio State University, Columbus; Roanoke College, Salem, Va.; and Simmons College, Boston, Mass.

CONCLUSION.

A table on the following page summarizes the art schools in the United States. It would seem from these enrollment figures that the number of young men and women who are attempting to be painters of easel pictures and sculptors of monumental works is quite out of proportion to those who aim to produce beautiful objects for everyday use. There is, however, a redeeming feature to this situation. Every individual who attempts to draw or model learns to enjoy beauty and becomes a sympathetic and appreciative audience for the professional artist. Much is done in the elementary and secondary schools in the United States in cultivating the appreciative powers and in creating intelligent consumers. Organizations outside the school systems have given valuable assistance to the work, the Public School Art Society of Chicago and the School Art League of New York being the most prominent.

The art education of the country as a whole lacks coordination. We seem to have begun at the wrong end, having many schools devoted to academic work in contrast to a few industrial art schools. A definite scheme should have: (1) Drawing in the elementary schools as a means of developing appreciation; (2) technical ability, to be gained in the secondary schools; (3) industrial art schools, where design is developed for specialized uses and the technical processes are mastered; (4) academic schools for the few who have shown unusual talent.

In some European cities there is a system of small scholarships which gradually eliminates the less talented pupils, but gives continued and increasing support to the unusually gifted. The Federal, State, and city governments might do much to encourage progress in the fine and industrial arts in the United States by establishing some similar system of scholarships.

STATISTICS OF ART SCHOOLS.

SCHOOLS AND ENROLLMENT IN 1913-14.[1]

Schools.	Schools listed.	Schools reporting.	Pupils enrolled.
Total schools	216	151	36,743
Architecture	74	53	3,005
Academic	109	35	6,252
Design	70	5	1,266
Crafts	35	2	204
Industrial	17	9	3,281
Normal	77	15	2,871
Evening	52	28	9,632
Summer	72	48	6,152

SCHOOLS AND ENROLLMENT IN 1909-10.[2]

Total schools	102	81	31,710
Architecture	31	29	3,043
Academic	57	33	6,329
Design	56	34	2,848
Crafts	39	21	1,279
Industrial	14	12	3,957
Normal	39	28	1,928
Evening	44	31	8,866
Summer	50	37	2,405

[1] From Vol. XI of the "American Art Annual."
[2] From Vol. VIII of the "American Art Annual."

LIST OF ART SCHOOLS, CLASSIFIED AS TO MANAGEMENT.

I. Affiliated with Art Museums.

San Francisco, Cal.—California School of Design.
Washington, D. C.—Corcoran School of Art.
Chicago, Ill.—Art Institute of Chicago.
Indianapolis, Ind.—School of the John Herron Art Institute.
Boston, Mass.—School of the Museum of Fine Arts.
Worcester, Mass.—School of the Worcester Art Museum.
Minneapolis, Minn.—Minneapolis School of Art.
Buffalo, N. Y.—Art School of the Albright Art Gallery.
New York, N. Y.—Cooper Union.
Cincinnati, Ohio.—Art Academy.
Toledo, Ohio.—School of the Toledo Museum of Art.
Portland, Oreg.—School of the Portland Art Association.
Philadelphia, Pa.—Pennsylvania Academy of the Fine Arts. Pennsylvania Museum and School of Industrial Art.

II. Affiliated with Art Societies.

Birmingham, Ala.—Birmingham Society of Architects.
Los Angeles, Cal.—Architectural Club Atelier.
San Francisco, Cal.—San Francisco Architectural Club.
Culebra, Canal Zone.—Hitt Atelier.
Hartford, Conn.—School of the Art Society of Hartford.
Washington, D. C.—Washington Architectural Club.
Chicago, Ill.—Bennett-Rebori Atelier. Chicago Architectural Club Atelier.
Indianapolis, Ind.—Indianapolis Architectural Club.
New Orleans, La.—Favrot and Livaudais Atelier.

Baltimore, Md.—Charcoal Club.
Boston, Mass.—Boston Architectural Club. Copley Society.
Bourne, Mass.—Old Colony Union.
Melrose, Mass.—Arts and Crafts Society.
New Bedford, Mass.—Architectural Atelier.
Detroit, Mich.—Detroit Atelier.
Minneapolis, Minn.—Handicraft Guild School of Design.
St. Paul, Minn.—St. Paul Institute School of Art.
Kansas City, Mo.—Fine Arts Institute School. Kansas City Chapter, American Institute of Architects.
Manchester, N. H.—Manchester Institute of Arts and Sciences.
Ocean Grove, N. J.—Cook Atelier.
New York, N. Y.—Corbett Atelier. Hirons Atelier. Hornbostel Atelier. Licht Atelier. National Academy of Design Free Schools. Sculpture Studio. Society of Beaux-Arts. Ware-Wynkoop Atelier.
Poughkeepsie, N. Y.—Smith Atelier.
Akron, Ohio.—Akron Architectural Club.
Cincinnati, Ohio.—Cincinnati Architectural Club.
Cleveland, Ohio.—Cleveland Architectural Club.
Columbus, Ohio.—Columbus Architectural Club. Columbus Art School.
Portland, Oreg.—Portland Architectural Club.
Philadelphia, Pa.—T Square Club.
Pittsburgh, Pa.—Hood Atelier.
Wilkes-Barre, Pa.—Atherton Atelier.
Newport, R. I.—Newport Art Association.
Richmond, Va.—Art School of the Art Club of Richmond.
Seattle, Wash.—Seattle Architectural Club.

III. Endowed Independent Art Schools.

Pasadena, Cal.—Stickney Memorial School of Fine Arts.
Norwich, Conn.—Norwich Free Academy, Art Department.
Baltimore, Md.—Maryland Institute for the Promotion of the Mechanic Arts. Rinehart School of Sculpture.
New Bedford, Mass.—Swain Free School of Design.
Newark, N. J.—Fawcett School of Industrial Art. Newark Technical School.
Trenton, N. J.—School of Industrial Arts.
New York, N. Y.—New York School of Applied Design for Women.
Cleveland, Ohio.—Cleveland School of Art.
Philadelphia, Pa.—Philadelphia School of Design for Women.
Providence, R. I.—Rhode Island School of Design (Museum has grown up around the school).

IV. Cooperative.

Boothbay Harbor, Me.—Art Colony, Summer School.
New York, N. Y.—Art Students' League of New York.

V. Maintained by Public Funds.

Boston, Mass.—Massachusetts Normal Art School.
Alfred, N. Y.—New York State School of Clay-Working and Ceramics.
New York, N. Y.—New York Evening School of Industrial Art.
Philadelphia, Pa.—Public Industrial Art School.

VI. Universities, Colleges, and Departmental Institutions Having Schools of Art.

Auburn, Ala.—Alabama Polytechnic Institute, Department of Architecture.
Livingston, Ala.—Alabama Normal College, Art Department.
Berkeley, Cal.—University of California, School of Architecture.
Fresno, Cal.—Fresno State Normal School, Art Department.
Los Angeles, Cal.—University of Southern California, College of Fine Arts.
Santa Barbara, Cal.—State Normal School of Manual Arts and Home Economics.
Santa Clara, Cal.—University of Santa Clara, College of Architecture.
Stanford University, Cal.—Leland Stanford Junior University, Department of Education.
Boulder, Colo.—Colorado Chautauqua School of Art.
New Haven, Conn.—Yale School of the Fine Arts.
Washington, D. C.—Catholic University of America, College of Architecture. George Washington University, Department of Architecture. Howard University, College of Architecture (colored).
Atlanta, Ga.—Georgia School of Technology, Department of Architecture. University of Georgia, College of Architecture.
Chicago, Ill.—University of Chicago, Department of Fine and Industrial Art.
De Kalb, Ill.—Northern Illinois State Normal School, Normal Department.
Decatur, Ill.—James Millikin University, School of Fine and Applied Arts.
Jacksonville, Ill.—Illinois Woman's College, School of Fine Arts.
Peoria, Ill.—Bradley Polytechnic Institute, School of Arts and Sciences.
Urbana, Ill.—University of Illinois, Department of Architecture.
Angola, Ind.—Tri-State College, Department of Normal Art.
Bloomington, Ind.—Indiana State University, Normal Art Course.
Notre Dame, Ind.—University of Notre Dame, College of Architecture.
Des Moines, Iowa.—Des Moines College, Department of Normal Art.
Iowa City, Iowa.—State University of Iowa, College of Fine Arts.
Lawrence, Kans.—University of Kansas, Department of Drawing and Painting.
Lindsborg, Kans.—Bethany College, Department of Fine Arts.
Manhattan, Kans.—Kansas State Agricultural College, Department of Architecture and Drawing.
Bowling Green, Ky.—Western Kentucky State Normal School, Art Department.
Louisville, Ky.—University of Louisville, Department of Architecture.
Baton Rouge, La.—Louisiana State University, College of Architecture.
New Orleans, La.—Tulane University of Louisiana, Department of Architecture. Tulane University of Louisiana, Newcomb College School of Art.
Boston, Mass.—Massachusetts Institute of Technology, Department of Architecture.
Cambridge, Mass.—Harvard University, School of Architecture. Harvard University, School of Landscape Architecture.
Groton, Mass.—Lowthorpe School of Landscape Architecture.
Hyannis, Mass.—State Normal School, Art Department of Summer School.
Wellesley, Mass.—Wellesley College, Art Department.
Ann Arbor, Mich.—University of Michigan, Department of Architecture.
Kalamazoo, Mich.—Western State Normal School, Art Department.
Minneapolis, Minn.—University of Minnesota, Department of Architecture.
Jackson, Miss.—Bellhaven Collegiate and Industrial Institute, Art Department.
St. Louis, Mo.—Washington University, School of Architecture. Washington University, School of Fine Arts.
Warrensburg, Mo.—State Normal School, Art Department.
Lincoln, Nebr.—University of Nebraska, School of Fine Arts.
Plymouth, N. H.—Plymouth Normal School, Art Department.

East Las Vegas, N. Mex.—New Mexico Normal University, Art Department.

Chautauqua, N. Y.—Chautauqua School of Arts and Crafts.

Ithaca, N. Y.—Cornell University, College of Architecture. Cornell University, School of Landscape Architecture.

New York, N. Y.—Columbia University, School of Architecture. Columbia University, Department of Fine Arts of Teachers College. Cooper Union for the Advancement of Science and Art. Ethical Culture, Art High School. Mechanics Institute, Art Department. New York University, Summer School of Art. Pratt Institute, School of Fine and Applied Arts. Young Men's Christian Association, Art Department. Young Women's Christian Association, Art School.

Rochester, N. Y.—Mechanics' Institute, Department of Applied and Fine Arts.

Syracuse, N. Y.—Syracuse University, College of Fine Arts.

Hickory, N. C.—Lenoir College, Art Department.

Ada, Ohio.—Ohio Northern University, College of Architecture.

Cincinnati, Ohio.—Ohio Mechanics Institute, Department of Applied Arts.

Oberlin, Ohio.—Oberlin College, Art Department.

Edmond, Okla.—Central State Normal School, Art Department.

Corvallis, Oreg.—Oregon State Agricultural College, Department of Art and Architecture.

Mansfield, Pa.—State Normal School, Art Department.

Philadelphia, Pa.—Drexel Institute, Department of Architecture, School of Engineering. University of Pennsylvania, Department of Architecture.

Pittsburgh, Pa.—Carnegie Institute of Technology, School of Applied Design. University of Pittsburgh, Department of Fine and Industrial Arts.

West Chester, Pa.—State Normal School, Art Department.

Springfield, S. Dak.—State Normal School, Art Department.

Knoxville, Tenn.—Summer School of the South, Art Department.

Jefferson City, Tenn.—Carson and Newman College, Normal Art Department.

Austin, Tex.—University of Texas, School of Architecture.

College Station, Tex.—Agricultural and Mechanical College of Texas, Department of Architecture.

Denton, Tex.—College of Industrial Arts, Art Department.

Fort Worth, Tex.—Texas Christian University, Art Department. Texas Woman's College, Art Department.

Salt Lake City, Utah.—University of Utah, Art Department.

Charlottesville, Va.—University of Virginia, Summer School.

Seattle, Wash.—Washington State University, School of Fine Arts.

Pullman, Wash.—State College of Washington, Department of Architecture.

Huntington, W. Va.—Marshall College, Art Department.

Madison, Wis.—University of Wisconsin.

Menomonie, Wis.—Stout Institute, Art Department.

Milwaukee, Wis.—State Normal School, School of Fine and Applied Arts.

VII. Private Schools.

Alma, Cal.—Cathedral Oaks School of Art.

Berkeley, Cal.—California School of Arts and Crafts.

Carmel-by-the-Sea, Cal.—Chase Summer School of Art. California School of Arts and Crafts, Summer Course.

Los Angeles, Cal.—Los Angeles School of Art and Design.

Denver, Colo.—Fine Arts Academy of Denver. Students' School of Art.

Hartford, Conn.—Flagg Night School of Drawing for Men.

Lyme, Conn.—Old Lyme Art Class.

Noank, Conn.—Peters Classes.

Chicago, Ill.—Chicago Academy of Fine Arts. Chicago School of Applied and Normal Art.
Des Moines, Iowa.—Cummings Art School.
Kittery Point, Me.—The New School.
Monhegan, Me.—Monhegan Summer School of Metal Work.
Ogunquit, Me.—Ogunquit Summer School. Summer School of Modeling.
Sebasco Estates, Casco Bay, Me.—New York Normal Art and Music School.
Sequinland, Me.—Summer School of Photography.
Boston, Mass.—Boston School of Metalry. Eric Pape School of Art. Fenway School of Illustration. The New School. School of Fine Arts, Crafts, and Decorative Design.
Edgartown, Mass.—Branstock School of Art.
Lynn, Mass.—Art School.
Provincetown, Mass.—Cape Cod School of Art.
Vineyard Haven, Mass.—Marthas Vineyard School of Art.
Detroit, Mich.—School of Fine Arts.
Kalamazoo, Mich.—Kalamazoo School of Art.
Saugatuck, Mich.—Summer School of Painting.
Albany, N. Y.—Albany School of Fine Arts.
Belle Terre, Long Island, N. Y.—New York School of Fine and Applied Arts, Summer School.
New York City, N. Y.—American School of Miniature Painting. Independent School of Art. New York School of Fine and Applied Art. Peters Art School. School of Mural Painting and Allied Arts.
Shady, Ulster County, N. Y.—Blue Dome Frat.
Troy, N. Y.—Troy School of Arts and Crafts.
Rye Beach, Lake Erie, Ohio.—W. D. Campbell Normal Art School.
Fort Washington, Pa.—Darby School of Painting.
Nashville, Tenn.—School of Design.
Dallas, Tex.—Annspaugh Art School.
Seattle, Wash.—Seattle Art League.

PROFESSIONAL ART SCHOOLS CLASSIFIED BY SUBJECTS.

Academic (Painting, Sculpture, Illustration).

Schools without marks have day courses only; day schools with evening courses have one asterisk (*); evening schools are marked with two asterisks (**); those with special facilities for the study of sculpture (s.); summer schools maintained in addition to regular winter sessions (†); summer sessions only (‡).

For full description of courses, with name of principal, number of instructors, date of foundation, tuition, and number of pupils, see American Art Annual, Vol. XI, p. 353.

Alma, Cal.—‡Cathedral Oaks School of Art.
Carmel-by-the-Sea, Cal.—‡Chase Summer School of Art.
Los Angeles, Cal.—†*School of Art and Design; University of Southern California.
Pasadena, Cal.—Stickney Memorial Art School.
San Francisco, Cal.—†*California School of Design.
Denver, Colo.—†Fine Arts Academy; †Students' School of Art.
Hartford, Conn.—**Flagg Night School of Drawing for Men; *School of the Art Society of Hartford.
Lyme, Conn.—‡Old Lyme Art Class.
New Haven, Conn.—Yale School of the Fine Arts.
Noank, Conn.—‡Peters Classes.
Norwich, Conn.—*Norwich Free Academy.
Washington, D. C.—*Corcoran School of Art.

[1] From American Art Annual, Vol. XI.

Chicago, Ill.—†*Art Institute of Chicago; †*Chicago Academy of Fine Arts; †Chicago School of Applied and Normal Art.
Decatur, Ill.—James Millikin University, School of Fine and Applied Arts.
Jacksonville, Ill.—Illinois Woman's College, School of Fine Arts.
Rockford, Ill.—Rockford College, Art Department.
Urbana, Ill.—University of Illinois, Department of Art and Design.
Indianapolis, Ind.—†*School of the John Herron Art Institute.
Des Moines, Iowa.—Cummings Art School.
Iowa City, Iowa.—State University of Iowa, School of Fine Arts.
Lawrence, Kans.—†University of Kansas, Department of Drawing and Painting.
Lindsborg, Kans.—Bethany College of Fine Arts.
Manhattan, Kans.—*Kansas State Agricultural College.
Louisville, Ky.—University of Louisville, Art Department.
New Orleans, La.—H. Sophie Newcomb Memorial College, School of Art.
Boothbay Harbor, Me.—‡Commonwealth Art Colony, Summer School.
Kittery Point, Me.—‡The New School.
Ogunquit, Me.—‡Ogunquit Summer School; ‡s.Summer School of Modeling
Portland, Me.—School of Fine Arts.
Baltimore, Md.—*Charcoal Club; *Maryland Institute of Mechanic Arts, s. Rinehart School of Sculpture.
Boston, Mass.—Copley Society; *Eric Pape School of Art; *Fenway School of Illustration; Massachusetts Normal Art School; The New School; School of Fine Arts, Crafts and Decorative Design; School of the Museum of Fine Arts.
Cambridge, Mass.—‡Harvard University, School of Fine Arts.
Edgartown, Mass.—‡s. Branstock School of Art.
Lanesville, Mass.—‡Coggeshall Camp and Studio.
Lynn, Mass.—Lynn Art School.
New Bedford, Mass.—*Swain Free School of Design.
Provincetown, Mass.—‡Cape Cod School of Art.
Vineyard Haven, Mass.—‡Martha's Vineyard School of Art.
Wellesley, Mass.—Wellesley College, Department of Fine Arts.
Worcester, Mass.—*School of the Worcester Art Museum.
Detroit, Mich.—Detroit School of Design; School of Fine Arts.
Kalamazoo, Mich.—Kalamazoo School of Art.
Saugatuck, Mich.—‡Summer School of Painting.
Minneapolis, Minn.—†*Minneapolis School of Art.
St. Paul, Minn.—†*St. Paul Institute School of Art.
Jackson, Miss.—Bellhaven Collegiate and Industrial Institute.
Kansas City, Mo.—†*Fine Arts Institute School.
St. Louis, Mo.—*Washington University, School of Fine Arts.
Lincoln, Nebr.—University of Nebraska, School of Fine Arts.
Manchester, N. H.—Manchester Institute of Arts and Sciences.
Trenton, N. J.—School of Industrial Art.
Albany, N. Y.—Albany School of Fine Arts.
Belle Terre, L. I., N. Y.—‡New York School of Fine and Applied Art.
Buffalo, N. Y.—Art School of the Albright Art Gallery.
New York, N. Y.—American School of Miniature Painting; *Brooklyn Institute of Arts and Sciences; †*Art Students' League of New York; †*Columbia University, Teachers College; **Cooper Union Night School for Men; Cooper Union Woman's Art School; Independent School of Art; †*National Academy of Design; New York School of Fine and Applied Arts; Peters Art School; *Pratt Institute, School of Fine and Applied Arts; *s. Sculpture Studio; Young Women's Christian Association Art School.

Shady, Ulster County, N. Y.—‡Blue Dome Frat.
Rochester, N. Y.—*Mechanics Institute, Department of Applied and Fine Arts.
Syracuse, N. Y.—†Syracuse University, College of Fine Arts.
Troy, N. Y.—Troy School of Arts and Crafts.
Woodstock, N. Y.—‡Art Students' League of New York.
Cincinnati, Ohio.—†*Art Academy.
Cleveland, Ohio.—*s. Cleveland School of Art.
Columbus, Ohio.—*Columbus Art School.
Oberlin, Ohio.—Oberlin College, Department of Fine Arts.
Toledo, Ohio.—*School of the Toledo Museum of Art.
Corvallis, Oreg.—†State Agricultural College, Department of Fine Arts.
Portland, Oreg.—*School of the Portland Art Association.
Fort Washington, Pa.—‡Darby School of Painting.
Philadelphia, Pa.—*s.Pennsylvania Academy of the Fine Arts; Philadelphia School of Design for Women; *School of Industrial Art of the Pennsylvania Museum; Spring Garden Institute.
Pittsburgh, Pa.—*Carnegie Institute of Technology, School of Applied Design; University of Pittsburgh.
Newport, R. I.—Newport Art Association.
Providence, R. I.—*Rhode Island School of Design.
Dallas, Tex.—Annspaugh Art School.
Fort Worth, Tex.—Texas Christian University; Texas Woman's College, Art Department.
Salt Lake City, Utah.—University of Utah, Art Department.
Richmond, Va.—*Art School of the Art Club of Richmond.
Pullman, Wash.—State College of Washington, Department of Fine Arts.
Seattle, Wash.—Seattle Art League.
Huntington, W. Va.—Marshall College, Art Department.
Madison, Wis.—University of Wisconsin, Department of Drawing and Design.
Milwaukee, Wis.—State Normal School, Department of Fine Arts.

Architectural.

Special facilities for mechanical drawing marked (M.).

Auburn, Ala.—Alabama Polytechnic Institute.
Birmingham, Ala.—**Birmingham Society of Architects.
Berkeley, Cal.—University of California.
Los Angeles, Cal.—**Architectural Club Atelier.
San Francisco, Cal.—*San Francisco Architectural Club.
Santa Clara, Cal.—University of Santa Clara.
Culebra, Canal Zone.—**Hitt Atelier.
New Haven, Conn.—Yale School of the Fine Arts.
Washington, D. C.—Catholic University of America; George Washington University; Howard University (colored); **Washington Architectural Club.
Atlanta, Ga.—Georgia School of Technology; University of Georgia.
Chicago, Ill.—†*Art Institute of Chicago; **Bennett-Rebori Atelier; *Chicago Academy of Fine Arts; *Chicago Architectural Club.
Urbana, Ill.—University of Illinois.
Indianapolis, Ind.—Architectural Club.
Notre Dame, Ind.—University of Notre Dame.
Manhattan, Kans.—†Kansas State Agricultural College.
Louisville, Ky.—University of Louisville.
Baton Rouge, La.—Louisiana State University.

New Orleans, La.—**Favrot-Livaudais Atelier; Tulane University of Louisiana, College of Technology.

Orono, Me.—University of Maine, Department of Horticulture and Landscape Architecture.

Baltimore, Md.—*M. Maryland Institute of Mechanic Arts.

Boston, Mass.—**Boston Architectural Club; Massachusetts Institute of Technology, Department of Architecture; Massachusetts Institute of Technology, Department of Landscape Architecture.

Cambridge, Mass.—Harvard University, School of Architecture; †Harvard University, School of Landscape Architecture.

Groton, Mass.—Lowthorpe School of Landscape Architecture.

New Bedford, Mass.—†Architectural Atelier.

Ann Arbor, Mich.—†University of Michigan; University of Michigan, Department of Landscape Architecture.

Detroit, Mich.—**Detroit Atelier.

Minneapolis, Minn.—†University of Minnesota.

Kansas City, Mo.—**Kansas City Chapter, A. I. A.

St. Louis, Mo.—**St. Louis Architectural Club; Washington University.

Lincoln, Nebr.—University of Nebraska.

Ocean Grove, N. J.—**Cook Atelier.

Trenton, N. J.—†School of Industrial Art.

Ithaca, N. Y.—†Cornell University, School of Architecture; †Cornell University, Department of Landscape Architecture.

New York, N. Y.—†*Columbia University; **M. Cooper Union, Night School of Art for Men; **Corbett Atelier; **Hirons Atelier; **Hornbostel Atelier; **Licht Atelier; **M. Mechanics Institute; *Pratt Institute; **Society of Beaux-Arts Architects; **Ware-Wynkoop Atelier.

Poughkeepsie, N. Y.—**Smith Atelier.

Rochester, N. Y.—*Mechanics Institute.

Syracuse, N. Y.—Syracuse University.

Ada, Ohio.—Ohio Northern University.

Akron, Ohio.—**Akron Architectural Club.

Cincinnati, Ohio.—**Cincinnati Architectural Club; *M. Ohio Mechanics Institute; Architectural Atelier.

Cleveland, Ohio.—*Cleveland Architectural Club.

Columbus, Ohio.—Ohio State University; Architectural Club.

Corvallis, Oreg.—Oregon State Agricultural College.

Portland, Oreg.—**Portland Architectural Club.

Philadelphia, Pa.—*M. Drexel Institute; ** T Square Club; †*University of Pennsylvania.

Pittsburgh, Pa.—*Carnegie Institute of Technology; **Hood Atelier.

Wilkes-Barre, Pa.—**Atherton Atelier.

Providence, R. I.—*Rhode Island School of Design.

Austin, Tex.—University of Texas.

College Station, Tex.—Agricultural and Mechanical College of Texas.

Seattle, Wash.—**Seattle Architectural Club.

Pullman, Wash.—†State College of Washington.

Menomonie, Wis.—M. Stout Institute.

Design.

Berkeley, Cal.—California School of Arts and Crafts.

Los Angeles, Cal.—University of Southern California, College of Fine Arts; School of Art and Design.

Pasadena, Cal.—Stickney Memorial Art School.

San Francisco, Cal.—California School of Design.

Santa Barbara, Cal.—State Normal School of Manual Arts and Home Economics.

Denver, Colo.—Fine Arts Academy of Denver; Students' School of Art.

Hartford, Conn.—**Flagg Night School of Drawing for Men; *School of the Art Society of Hartford.

Norwich, Conn.—Norwich Free Academy.

Chicago, Ill.—*Art Institute of Chicago; *Chicago Academy of Fine Arts; Chicago School of Applied and Normal Arts; University of Chicago, School of Education.

Decatur, Ill.—James Milliken University, School of Fine and Applied Arts.

Jacksonville, Ill.—Illinois Woman's College, School of Fine Arts.

Urbana, Ill.—University of Illinois, Department of Art and Design.

Indianapolis, Ind.—School of the John Herron Art Institute.

Lawrence, Kans.—University of Kansas, Department of Drawing and Painting.

New Orleans, La.—H. Sophie Newcomb Memorial College School of Art.

Baltimore, Md.—*Maryland Institute of Mechanic Arts.

Boston, Mass.—*Eric Pape School of Art; Massachusetts Normal Art School; School of Fine Arts, Crafts, and Decorative Design; School of the Museum of Fine Arts.

Lowell, Mass.—Textile School.

New Bedford, Mass.—Swain Free School of Design.

Worcester, Mass.—School of the Art Museum.

Detroit, Mich.—Detroit School of Design.

Minneapolis, Minn.—Handicraft Guild School of Design, Handicraft and Normal Art; Minneapolis School of Art.

St. Paul, Minn.—St. Paul Institute School of Art.

Jackson, Miss.—Bellhaven Collegiate and Industrial Institute.

Kansas City, Mo.—Fine Arts Institute.

St. Louis, Mo.—Washington University, School of Fine Arts.

Lincoln, Nebr.—University of Nebraska, School of Fine Arts.

Albany, N. Y.—Albany School of Fine Arts.

Buffalo, N. Y.—Art School of the Albright Art Gallery.

New York, N. Y.—Columbia University, Teachers College; **Cooper Union, Evening Art School for Men; Cooper Union, Woman's Art School; Ethical Culture Art High School; **New York Evening School of Industrial Art; New York School of Applied Design for Women; New York School of Fine and Applied Art; Pratt Institute, School of Fine and Applied Arts; **Young Men's Christian Association; Young Women's Christian Association Art School.

Rochester, N. Y.—Mechanics Institute, School of Applied and Fine Arts.

Syracuse, N. Y.—Syracuse University, School of Fine Arts.

Cincinnati, Ohio.—Art Academy; Mechanics' Institute.

Cleveland, Ohio.—School of Art.

Columbus, Ohio.—Columbus Art School.

Oberlin, Ohio.—*Oberlin College, Department of Fine Arts.

Toledo, Ohio.—School of the Art Museum.

Portland, Oreg.—School of the Portland Art Association.

Philadelphia, Pa.—†*School of Industrial Art of the Pennsylvania Museum; Philadelphia School of Design for Women.

Pittsburgh, Pa.—University of Pittsburgh, Department of Fine and Industrial Arts; *Carnegie Institute of Technology, School of Applied Design.

Providence, R. I.—*Rhode Island School of Design.

Nashville, Tenn.—School of Design.

Fort Worth, Tex.—Texas Woman's College.

Richmond, Va.—Art Club.

Pullman, Wash.—State College of Washington, Department of Fine Arts.

Seattle, Wash.—Seattle Art League.
Madison, Wis.—University of Wisconsin.
Menomonie, Wis.—Stout Institute.

Crafts (Metal Work, Jewelry, Pottery).

Berkeley, Cal.—California School of Arts and Crafts.
Carmel-by-the-Sea, Cal.—‡California School of Arts and Crafts.
Los Angeles, Cal.—Los Angeles School of Art and Design.
Pacific Grove, Cal.—‡Johonnot Summer School of Design.
Norwich, Conn.—Free Academy.
Chicago, Ill.—Art Institute of Chicago; Chicago Academy of Fine Arts; Chicago School of Applied and Normal Art.
Decatur, Ill.—James Millikin University, School of Fine and Applied Arts.
New Orleans, La.—H. Sophie Newcomb Memorial College.
Monhegan, Me.—‡Monhegan Summer School of Metal Work.
Ogunquit, Me.—‡Summer School of Metalry.
Sequinland, Me.—‡Summer School of Photography.
Boston, Mass.—Boston School of Metalry.
Bourne, Mass.—Old Colony Union.
Melrose, Mass.—Arts and Crafts Society.
Worcester, Mass.—School of the Worcester Art Museum.
Minneapolis, Minn.—Handicraft Guild School of Design, Handicraft and Normal Art.
St. Louis, Mo.—Washington University, School of Fine Arts.
Manchester, N. H.—Manchester Institute of Arts and Sciences.
New York, N. Y.—Brooklyn Institute of Arts and Sciences; Columbia University, Teachers College; **New York Evening School of Industrial Art; New York School of Fine and Applied Art; Pratt Institute, School of Fine and Applied Arts; Young Women's Christian Association.
Rochester, N. Y.—Mechanics Institute, Department of Applied and Fine Arts.
Troy, N. Y.—Troy School of Arts and Crafts.
Cincinnati, Ohio.—Art Academy.
Cleveland, Ohio—Cleveland School of Art.
Columbus, Ohio—Columbus Art School.
Toledo, Ohio—School of the Toledo Museum of Art.
Philadelphia, Pa.—School of Industrial Art of the Pennsylvania Museum.
Providence, R. I.—Rhode Island School of Design.
Knoxville, Tenn.—‡Summer School of the South.

Industrial Art.

Santa Barbara, Cal.—State Normal School of Manual Arts and Home Economics.
Peoria, Ill.—Bradley Polytechnic Institute, School of Arts and Sciences.
Urbana, Ill.—University of Illinois, School of Ceramics.
New Orleans, La.—H. Sophie Newcomb Memorial College, School of Art.
Lowell, Mass.—Lowell Textile School.
New Bedford, Mass.—Textile School.
Newark, N. J.—†*Fawcett School of Industrial Arts; *Newark Technical School.
Trenton, N. J.—*School of Industrial Arts.
Alfred, N. Y.—New York State School of Clay-Working and Ceramics.
New York, N. Y.—†Columbia University, Teachers College; *Pratt Institute.
Cincinnati, Ohio—†*Ohio Mechanics Institute Department of Applied Arts.
Philadelphia, Pa.—*School of Industrial Art of the Pennsylvania Museum.
Providence, R. I.—*Rhode Island School of Design.
Denton, Tex.—School of Industrial Art.
Menomonie, Wis.—Stout Institute.

NORMAL.

Livingston, Ala.—†Alabama Normal College.
Berkeley, Cal.—California School of Arts and Crafts.
Fresno, Cal.—Fresno State Normal School.
Los Angeles, Cal.—†Los Angeles School of Art and Design; University of Southern California.
San Francisco, Cal.—†California School of Design.
Santa Barbara, Cal.—State Normal School of Manual Arts and Home Economics.
Stanford University, Cal.—Leland Stanford Jr. University, Division of Graphic Arts.
Boulder, Colo.—‡Colorado Chautauqua.
Denver, Colo.—†Fine Arts Academy of Denver.
Norwich, Conn.—Norwich Free Academy.
Chicago, Ill.—†Art Institute of Chicago; ‡Applied Arts Summer School; Chicago Academy of Fine Arts; †Chicago School of Applied and Normal Art; †University of Chicago, School of Education.
Decatur, Ill.—James Milliken University, School of Fine and Applied Arts.
DeKalb, Ill.—Northern Illinois State Normal School.
Peoria, Ill.—†Bradley Polytechnic Institute, School of Arts and Sciences.
Urbana, Ill.—University of Illinois, Department of Art and Design.
Angola, Ind.—Tri-State College, Department of Normal Art.
Bloomington, Ind.—State University, Normal Art Course.
Indianapolis, Ind.—†School of the John Herron Art Institute.
Des Moines, Iowa.—Des Moines College, Department of Normal Art.
Lawrence, Kans.—†University of Kansas, Department of Drawing and Painting.
Bowling Green, Ky.—Western Kentucky State Normal School.
New Orleans, La.—H. Sophie Newcomb Memorial College, School of Art; Tulane University of Louisiana, College of Arts and Sciences.
Boothbay Harbor, Me.—‡Commonwealth Art Colony.
Sebasco Estates, Me.—‡New York Normal Art and Music School.
Baltimore, Md.—Maryland Institute of Mechanic Arts.
Boston, Mass.—Massachusetts Normal Art School.
Hyannis, Mass.—‡State Normal School.
New Bedford, Mass.—Swain Free School of Design.
Detroit, Mich.—Detroit School of Design.
Kalamazoo, Mich.—Kalamazoo School of Art; Western State Normal School, Art Department.
Minneapolis, Minn.—†Handicraft Guild School of Design, Handicraft and Normal Art; †Minneapolis School of Art.
St. Paul, Minn.—†St. Paul Institute School of Art.
Jackson, Miss.—Bellhaven Collegiate and Industrial Institute, Art Department.
Kansas City, Mo.—†Fine Arts Institute School.
Warrensburg, Mo.—State Normal School, Art Department.
Lincoln, Nebr.—University of Nebraska, School of Fine Arts.
Plymouth, N. H.—Plymouth Normal School, Art Department.
East Las Vegas, N. Mex.—New Mexico Normal University, Art Department.
Trenton, N. J.—School of Industrial Art.
Albany, N. Y.—Albany School of Fine Arts.
Belle Terre, L. I., N. Y.—‡New York School of Fine and Applied Art, Summer School.
Chautauqua, N. Y.—‡Chautauqua School of Arts and Crafts.
New York, N. Y.—Brooklyn Institute of Arts and Sciences; †Columbia University, Teachers College; New York School of Fine and Applied Art; ‡New York University, Art Department; Pratt Institute, School of Fine and Applied Arts.

Rochester, N. Y.—†Mechanics Institute, Department of Applied and Fine Arts.
Syracuse, N. Y.—†Syracuse University, College of Fine Arts.
Hickory, N. C.—Lenoir College, Art Department.
Cleveland, Ohio.—Cleveland School of Art.
Oberlin, Ohio.—Oberlin College, Art Department.
Rye Beach, Ohio.—‡W. D. Campbell Normal Art School.
Edmond, Okla.—†Central State Normal School, Art Department.
Mansfield, Pa.—State Normal School, Art Department.
Philadelphia, Pa.—†School of Industrial Art of the Pennsylvania Museum; Philadelphia School of Design for Women.
Pittsburgh, Pa.—Carnegie Institute of Technology, School of Applied Design; †University of Pittsburgh, Department of Fine and Industrial Arts.
Providence, R. I.—Rhode Island School of Design.
Springfield, S. Dak.—State Normal School, Art Department.
Jefferson City, Tenn.—Carson and Newman College, Normal Art Department.
Knoxville, Tenn.—‡Summer School of the South, Art Department.
Dallas, Tex.—†Vivian Annspaugh Art School.
Fort Worth, Tex.—†Texas Christian University, Art Department.
Salt Lake City, Utah.—University of Utah, Art Department.
Charlottesville, Va.—‡University of Virginia, Summer School.
Seattle, Wash.—Seattle Art League; Washington State University, School of Fine Arts.
Milwaukee, Wis.—State Normal School, School of Fine and Applied Arts.

CHAPTER XVIII.

THE TREND OF CIVIC EDUCATION.

By Arthur William Dunn,
Specialist in Civic Education, Bureau of Education.

Contents.—Aim and scope of civic education—Continuity of civic education—Socialization of entire school—Extra-school agencies of civic education—Civic education through participation—Civic education of the immigrant—Elementary community civics—Preparation of the teacher—Civic education in secondary schools—Civic education in colleges—Civic aspects of vocational education—Civic education in rural communities—Cooperation in behalf of civic education.

AIM AND SCOPE OF CIVIC EDUCATION.

A tide of democracy is flooding the country. Remarkable changes are occurring in our methods of self-government. The direct primary, the initiative and the referendum, the popular election of United States Senators, the recall of officials and of judicial decisions, the short ballot, the extension of woman suffrage, preferential presidential primaries, proportional representation—these and other innovations in our methods of government, while aiming at greater governmental efficiency, seek this end through a larger degree of popular control. However good these devices may be, they will inevitably fall short of their purpose unless they are in competent hands. The fundamental problem of good government in a democracy is an educational one. The mechanism of self-government will be built on crumbling sand unless its foundations are laid deep with an effective civic education.

Coincident with this expanding tide of democracy, a new interest in civic education has been developing; but it is a civic education with a new content, a new aim, and new methods. The movement began with a feeling that the instruction in government in the schools and colleges was inadequate; but it is growing, under a conviction that no amount of instruction in government will of itself meet the demand for a civic education that will afford a real bulwark to our democracy. The weakness of democratic government lies in part in imperfect devices; in part in a lack of intelligence on the part of the citizen; but it lies chiefly in civic apathy, wrong motives, and the absence of certain essential qualities of good citizenship. Even intelligence includes more than mere knowledge; and intelligence must be supplemented by *will* if we are to attain the desired ends, even with the best of machinery.

The first and most important tendency in civic education at present may be represented by the outline following. The portion above the dotted line represents, in effect, practically all that has been included in civic education in the past. Now the tendency is to lay especial emphasis upon the factors indicated below the dotted line. It is in these factors that the real safeguard of democracy is to be found.

Civic Education Aims to Cultivate—

I. Civic intelligence, which includes—
   1. Civic knowledge.

.....

   2. Power to organize this knowledge with reference to one's own experience and interest.
   3. Judgment, when confronted by a civic situation or by a choice of methods of meeting the situation.

II. Adequate and proper motives for—
   1. Training the civic intelligence.
   2. Civic action.

III. Various other qualities of good citizenship, such as—
   1. A sense of personal responsibility.
   2. Power of initiative.
   3. A spirit and habit of team work (cooperation).

A second important tendency in civic education is the projection of its organized beginnings back into the early years of life.

CONTINUITY OF CIVIC EDUCATION.

A dozen years ago, and earlier, inquiries into the subject of civic education were restricted to the field of instruction in colleges and universities. Later, attention was directed to the high schools. One committee reported, for example, that "in the grammar schools very little can be done beyond gaining familiarity with the nomenclature of political science. * * * It is to the high schools of our large cities that we must look for the greatest results." Recently, however, perhaps more definite progress has been made toward effective civic training in the elementary schools than anywhere else along the line.

The problem of civic education in secondary schools looms larger to-day than ever, but whereas the work of the high schools was formerly little more than an imitation of college courses in government, these schools are now tending to take their cue from the elementary schools; that is, the principles that have controlled in the recent development of elementary civics are being applied in large measure to the reorganization of the high-school work.

Just as high-school civics was once, and still is to a large extent, an imitation of college work, so, when it was first conceived that larger numbers could be reached by introducing civics into the lower grades,

it was attempted by a more or less faithful reproduction of high-school methods. So true is this that the impression has often seemed to prevail among both pupils and teachers that, if the pupils have "had it," like measles, in the lower grades, they need not "take it" in the upper grades. There has been little conception, apparently, of the truth that civic education is a process of *growth*.

More than this, candidates for teachers' licenses are required, in nearly all States, to take formal examinations in government that many high-school graduates and some grammar-school pupils could pass with credit. The civic education of the immigrant, where it is provided for at all,[1] often consists of approximately the same treatment as that accorded to native elementary and high-school pupils, and to those in training to become teachers of young citizens; and his civic proficiency is tested by the same type of examination.

But all this is passing; and the third tendency to be noted, accordingly, is the growing recognition of civic education as a process of growth, that must be continuous and that must be adapted in content and method, at its various stages, to the immediate interests, the actual experience, the mental capacity, and the environment of the particular group in training. Out of the general problem, therefore, have grown a large number of special problems, the key to which is to be found in the characteristics, the interests, and the aims of the several groups to be educated. So we now have, not only an elementary school problem, a high-school problem, and a problem of the college, but a new problem of civic education as it relates to the recently developed vocational and continuation schools; a problem of civic education peculiar to rural conditions; a problem of civic education for the adult population; a problem of civic education for the immigrant; and others.

SOCIALIZATION OF ENTIRE SCHOOL.

A fourth tendency of the greatest importance in civic education is that toward a more general recognition of the fact that, while instruction in civics as such is receiving a new interpretation and a new emphasis, it is only one of the means by which the school may give organized training for intelligent participation in civic life. The new conception of civics makes it imperative that the entire work of the school shall contribute toward this end.

The test of the efficiency of the work in arithmetic, or reading, or geography has heretofore been almost solely the amount of knowledge or the degree of skill acquired by the pupil in these subjects. If any civic value has been accorded to these subjects, it has been through a vague notion that the more a citizen knows about anything the

[1] See p. 408 of this report.

better citizen he will be. But new standards are being set up. Dr. McMurry, of Teachers College, New York, has said, for example:

> We must look directly to the life about us to find what subject matter the school should offer, and how this should be treated. The curriculum will be good to the degree in which it contains problems—mental, moral, esthetic, and economic—that are socially vital and yet within the appreciation of the pupils; and its method of presenting that curriculum will be good to the degree in which it exemplifies the methods of solving problems found most effective by the world's most intelligent workers.

Vocational education was introduced originally because of the individual need of the boy or girl for a "job," or that of the employer for efficient workers. To-day the emphasis is shifting to the civic point of view, viz, that the first duty of the citizen is to be self-supporting, and the second to contribute efficiently to the economic welfare of the community. The playground and the school garden, first advocated largely as means of health and recreation for the individual child, are now seized upon as means of cultivating civic habits, such as cooperation, thrift, regard for property rights, etc. Even the movement for the treatment of pupils as individuals rather than en masse is after all only an attempt to fit the individual for his peculiar place as a member in the social group. Thus the entire development of public education to-day is characterized by a definite recognition of its distinctly civic aspects.

EXTRA-SCHOOL AGENCIES OF CIVIC EDUCATION.

So far reference has been made only to tendencies seen primarily within the schools. The next tendency of civic education to be mentioned is its extension both for youth and adults through extra-school agencies. This is in recognition of the fact, first, that the school is only one of the available agencies of civic education, and, second, that civic education should not end with the school nor with youth, but should be continuous through life.

One manifestation of this tendency is the increasing attention to organized discussion and debate—one might almost say their revival, because the present movement is in some respects a logical substitute for the almost extinct town meeting, and for the country cross-roads discussions that have largely disappeared through the extension of urban influences, the rural postal service, the telephone, and other revolutionary influences in country life.

The mechanism for such popular civic education has taken various forms and is directed by various agencies. One of its forms is the social or community center, appearing first in cities, but now extended widely through rural districts. In some States, as in Wisconsin, the work is directed wholly or in part by the State uni-

versities. In others, as in the State of Washington, the State public school authorities have taken the initiative. In still others, citizen organizations exist as the directing agent, such as the Cooperative Education Association of Virginia, which works in conjunction with the State board of education, and which has organized school and civic leagues throughout the rural districts of the State. In all cases, the school building is usually the meeting place, and a movement seems to be gaining ground for uniting the functions of school principals with those of civic secretaries for their districts.

In Virginia, North Carolina, Illinois, Iowa, Washington, Wisconsin, and elsewhere, bulletins are issued at intervals by State universities and other agencies, suggesting vital topics for discussion, and otherwise guiding the movement in their localities. State-wide high school and college debating leagues exist in many States. Through its county work the Young Men's Christian Association is taking an active part in the movement, and the church is awaking to its opportunities and obligations in the same field.[1] Nor may we omit special mention of the aggressive work of women's clubs everywhere, not only for self-education, and community education, in civic matters, but in the organization of junior civic leagues as an adjunct to, or substitute for, the work of the schools in the same field. The junior civic league is one of numerous extra-school agencies for children that are already working, or have peculiar opportunities to do much, in the cause of civic training.

The activities and agencies mentioned here are illustrative of a widespread movement of great significance in its relation to the progress of democracy. The very multiplicity of agencies, however, raises the question as to how far some of them have permanent functions to perform, and how far they are merely temporary expedients, pointing the way to functions that should ultimately be performed through previously existing, and perhaps official, channels. To what extent are these recent developments a result of failure on the part of existing agencies to perform their proper functions, and doomed to self-extinguishment when the latter shall have assumed their full duty? For example, the junior civic league doubtless performs a valuable and necessary service; but would the same necessity for it exist if the public school were meeting the problem of civic education to an extent that is wholly reasonable to expect? How far, in other words, should the junior civic league seek to establish itself as a permanent institution, and how far should it merely seek to point the way to the public school, acting only as a temporary substitute for it and stimulus to it?

[1] Witness the surveys made by the department of church and country life of the Presbyterian Church.

CIVIC EDUCATION THROUGH PARTICIPATION.

One final characteristic of present-day civic education which must be referred to in this partial review is the tendency toward participation in civic activities as a means of civic training. Not only is action the end of all good citizenship, but it is an invaluable means, as well as the end, of all good civic training. If civic education means the cultivation of qualities of good citizenship, *doing something* is really more important than instruction or discussion. It is through activity that habits are formed, interest kindled and maintained, initiative stimulated, and judgment developed.

It is this idea that lies back of the various schemes of pupil participation in school government. They rest on the principle that schools whose chief function is to train for efficient membership in a democracy should themselves be democratic in order that their pupils may be trained in habits of self-government. This principle is sound. But while some of these experiments have produced remarkably good results, others have failed utterly. A plan that has succeeded in one case has often been unsuccessful in another. Where the application of the idea has failed, it seems to be due to the following principal causes: (1) Overconfidence in a particular device for pupil self-government as a means of civic training. It is one thing to say that pupil participation in school management is an invaluable means of civic training; it is an entirely different thing to expect that any particular piece of machinery for that purpose constitutes, in itself, adequate provision for such training. (2) A second weakness of some self-governing experiments lies in their artificiality. This has sometimes been the case with plans by which the school is organized as a city or a State, with mayors and governors and policemen and other officers that properly belong to the larger communities, but not to a school. The tendency in such cases is for the children to play at governing a city or a State instead of actually managing the realities of school life. It is to be remembered that while the school is a community, it is a school community, and not a city or a State. (3) Another cause of failure of pupil self-governing schemes has been the mistaking of one of their incidental results for their primary purpose. The real end of pupil self-government is training for citizenship; an incidental result should be a better kind of discipline in the school. But those who have thought that by introducing some scheme of self-government the school would "take care of itself," in the sense that teachers and school officers would be relieved of responsibility and labor, have been doomed to disappointment. It is true that the teacher should be relieved of much petty disciplinary effort; but a larger responsibility must take its place. (4) This suggests a fourth cause of failure on the part of many self-governing experiments, viz,

the failure of the teaching force to understand and enter into the social spirit necessary to make any such scheme a real success. In a self-governing school community the teacher still remains a member, and a very important member, of that community. The problem is not one of mechanics, but of social spirit, of sympathy, of interest, of thorough comprehension of the real meaning of civic life. The failure of the teaching body as a whole, through lack of training or otherwise, to enter into the spirit of cooperative self-government foredooms efforts in this direction to certain failure.

In spite of such difficulties, pupil participation in the control of the life of the school is becoming more generally recognized as an invaluable means of civic training. The tendency, however, is to place less dependence upon devices of organization, and more upon the development of a community spirit and a simple community cooperation appropriate to the ordinary conditions of school life.

It should perhaps be said, parenthetically, that the matter of dramatizing the proceedings of government, whether of city councils, or courts, or State legislatures, as a means of instruction regarding such things, is an entirely different question.

It is the idea of civic training through activity, also, that gives to the playground and the school garden their civic educational value. It is one of the elements of strength in the boy scouts and in the junior civic league. It lies at the foundation of the most advanced educational methods, and is the keynote to the new type of civic instruction now finding its way into the elementary school. New schemes for the participation of children in actual civic enterprises outside of the school are appearing almost daily. With all its value, however, there is also a danger in this participation by children in civic affairs. It requires the best of judgment on the part of those who direct it. A recent article in an educational journal described a method of civic training that led a little elementary schoolgirl to rebuke men on the street for expectorating. Good judgment, at least, was lacking in this case. There have been cases where boys have bred flies in putrid meat for the sake of winning a prize in a fly-swatting campaign. The motive was wrong in such cases. It must be borne in mind that the purpose of the school is to educate, and not to exploit the children to bring about reforms that the established agencies and the more responsible citizens have failed to accomplish.

Civic education has seemed to many to be either a very indefinite thing with little that is tangible about it, or else a very particular thing of narrow application and of little general interest. Vocational education makes a strong appeal to the business man because he can see it in terms of efficiency among his employees, or in terms of ability on the part of the boy to find and hold a job. It suggests something

very definite and desirable, even though the average citizen probably knows little or nothing about the complicated educational problems involved in it. It has not been so with civic education. "Training for citizenship" indeed strikes a spark of interest; but so long as it meant merely formal instruction in government it savored too much of the schoolroom to arouse general interest; and since the revolt against this narrow conception began, no clearly defined concept has been formulated to take its place. The first necessity, then, is to interpret training for citizenship, or civic education, in the light of actual tendencies and demands. This task is far from complete, but the foregoing partial review may help to define the significance and scope of the problem.

CIVIC EDUCATION OF THE IMMIGRANT.

One of the conspicuous features of civic education to-day, as shown above, is that it comprises a number of related, but nevertheless distinct, problems. The more we narrow our view upon one or other of these component problems, the more definite they become. As we refer to some of these, one thing will stand out conspicuously, and that is the extent to which each depends for its solution upon the solution of others.

For example, the effective civic education of the immigrant depends, among other things, upon the availability of suitable texts or other printed matter, and upon properly trained teachers. It depends upon the working out of methods by which to reach the motives, the interests, the sense of personal responsibility, the initiative, as well as the intelligence, of the immigrant. It also depends in a measure upon whether the immigrant is a city dweller or has made his home in a rural district. Every successful piece of work that is done in the field of elementary or high-school civics, or in civic education for continuation schools, or in rural or urban civics, or in the normal schools, will have its suggestion for the successful civic education of the immigrant. A successful method of approaching the problem of the civic education of the immigrant, therefore, involves the perspective which is furnished by keeping in mind the other special problems included in the comprehensive scheme. It is in large measure because this has not always been done that some of the special and unrelated schemes for immigrant education have proved so inadequate.

We have been speaking here of the adult immigrant. As for the immigrant child, provision for his civic training forms a part of the problem of civic education in elementary, secondary, and continuation schools. It may be added that one of the most effective channels by which to reach the adult immigrant is through his children, which

only adds further emphasis to the need of a type of civic education in the schools that will enter into the very lives of the pupils.

Nevertheless, the civic education of the adult immigrant has its own peculiar aspects. It requires, first of all, a knowledge of the immigrant, and indeed of each group of immigrants. When the first "foreigners" came to America, in the fifteenth and sixteenth centuries, they interpreted what they found here in terms of their own experience. They referred to the adobe communal dwellings of Mexico as palaces, and described the barbarous society of that new land in terms of emperors, lords, and knights. The disastrous results of the contact of these early Europeans with the natives were in large measure due to a total misunderstanding between two radically different civilizations. The same thing is largely true to-day. What would happen, for example, if the native of eastern Europe, who in his native land is accustomed to look upon the justice of the peace in his little village as his paternal adviser on all sorts of questions of daily life, should attempt to follow the same custom with the officers with the same title in this country? The civic education of the immigrant must be a process by which he is definitely helped to make the transition from his European type of community life to the American type. He is not a child; he is an adult with a definite mental and social heritage. Success in helping him depends as much upon understanding what he brings with him as it does upon a formal knowledge of our own institutions.

ELEMENTARY COMMUNITY CIVICS.

Reference has been made to the extension of civic education into the elementary schools. As the result of several years' attention to this problem there have been evolved some very definite concepts as to the type of civic education that is best adapted to the needs and capacities and interests of children of grammar-school age. The most usual form of the new elementary civic education has come to be known quite widely as "community civics." The aim of "community civics" is to help the pupil "to know his own community"—not merely a collection of formal facts about it, but especially the meaning of his community life, what it does for him and how it does it (especially through the channels of government), what the community has a right to expect from him, and how he may fulfill his obligation; meanwhile, by various methods, cultivating in the pupil the essential qualities and habits of good citizenship.

"Community civics" inevitably lays much emphasis upon the local community and the local civic relations, because (1) it is the local community with which every citizen, especially the young citizen, comes into most intimate relations and which is almost

always in the foreground of consciousness; and (2) it is easier for the child (as for any citizen) to realize his membership in his local community, to feel a sense of personal responsibility for it, and to enter into active cooperation with it, than is the case with the vast national community. It is in connection with the local community life that the young citizen most readily forms habits of good citizenship.

In many localities the more or less systematic study of the immediate community is now a part of the regular curriculum. Chicago affords a notable example of this. Indianapolis was one of the first cities to introduce systematic community civics in the grammar schools; in fact, it was the work done here that seems to have suggested the term "community civics." Cincinnati introduced a similar course, largely through the influence of her neighbor, Indianapolis. Newark, N. J., has for a number of years had a course in "Newark study" in its schools.

A noteworthy feature of the Newark plan is the cooperation of the public library in making available to the pupils and other citizens of that city well-selected and abundant printed material relating to every phase of Newark's development and community life. Similar work has been done in other cities through the cooperation of other agencies with the public schools. In Indianapolis, for example, the commercial club cooperated with the board of education in the publication of pamphlets relating to the history and government of that city. Several years earlier the Chicago Normal College issued some such material, including the story of "The Fight for Life in Chicago," which was an account of the development of Chicago's means of health protection. At the present time the Chicago Normal College is publishing in the Educational Bi-Monthly a series of articles on "The History and Government of Chicago." In a few instances local textbooks are being prepared for the use of the local schools.

The emphasis given to the local community for the reasons given above seems to tend in some cases to obscure the real significance of the term "community civics." The significance of this term does not lie in its geographical implications, but in its implication of community interests, community relations, community cooperation through government. The term should by no means exclude the national or the State concept. The Nation and the State are as truly communities as is the town or city, and their governments are as really means by which the citizens may cooperate as in the case of local governments. A study of one's local community may be as lifeless and as devoid of the real spirit of community civics as the old formal study of the machinery of the Federal Government. On the other hand, the spirit of community civics may be made thoroughly to infuse the study of the Nation or the State.

PREPARATION OF THE TEACHER.

In the field of elementary civic education we are brought sharply up against the problem of the preparation of the teacher for this vital type of work. One of the urgent needs is for a teaching force better trained on the civic side. This suggests the necessity for a vitalized type of civic education in institutions that train teachers, including the high school, the normal training school, and the college. The high-school problem will be referred to later. In the training schools for teachers there is the greatest need for something more vital than the formal courses and examinations in government that have prevailed heretofore. A valuable suggestion may be found in the work of the State Normal School at Athens, Ga. This is described in full in Bulletin, 1913, No. 23, Bureau of Education. The following quotations suggest the spirit and method of the work there:

> The final justification of public taxation for public education lies in the training of the young people for citizenship. If a public institution is not doing this, it has no reason for existence, at least no claim upon the public purse. * * *
>
> The Georgia Club believes that an institution supported by the State ought thoroughly to know the Commonwealth that gives it life; that it ought to adjust its work to the needs of the State, acquaint its students with the resources and possibilities of the State, and breed in them the wisdom, the willingness, and the skill that the Commonwealth has a right to expect from her sons and daughters.
>
> The Georgia Club may be said to have stumbled into the discovery that the home State and the home county are proper subjects of school study; that exact information about one's own community and people arouses sympathetic concern and civic conscience, and therefore furnishes a definite and sure foundation for social service and efficient citizenship.
>
> And so the Georgia Club speedily settled down into a faithful study of the near, the here, and the now, the significance of the community occupations and businesses, the forces and agencies that are offering obstacles or creating opportunities in the field of social service to which as teachers we are consecrating ourselves.
>
> What is needed seems to be not formal insulated textbook courses in economics and sociology; * * * but direct, first-hand, sympathetic experience with the workaday world of men; the dyeing of our hands, the steeping of our minds in the affairs of community life—business, civic, social, and religous.
>
> The club members here will be teachers, but few of them will be teachers merely; they will be leaders as well in every kind of progressive community enterprise. The mere teacher ought to go out of existence. The State does not need teachers merely, but teachers who are citizens and patriots as well. The club develops leadership as well as teachership.

A number of school superintendents have expressed their conviction that the schools of large communities, at least, should have supervisors or directors of civic education, one of whose first duties would be to serve as the connecting link between the teaching body and the realities of the community life and who would lead conferences among the teachers relative to the facts regarding the community and the methods by which the civic consciousness and civic habits of the pupils may be cultivated.

There is a widespread demand at present on the part of school authorities and teachers for literature that will suggest concretely methods by which civic education may be vitalized, largely derived from the experience of successful teachers. The Bureau of Education is attempting to meet this demand as far as possible.

CIVIC EDUCATION IN SECONDARY SCHOOLS.

The problem of civic education in the high school is of peculiar importance. The high school is in part, though only in part, a preparatory school for the college. The work that it does can not be college work, though in its organization the needs of the pupil who goes to college must be kept in mind. The college problem, as well as the high-school problem, is greatly complicated by the absence of the proper kind of articulation between the two grades of institution. As has been suggested above, the civics work of the high school has been too largely an imitation of the college course, and too little a preparation for it. Though the college men have themselves been largely responsible for the character of the courses in history and government given in the high schools, they are now coming to recognize that what the college entrant needs is not so much a mass of facts about government as a correct point of view, a right attitude, an interest, and a motive.

On the other hand, the majority of high-school pupils do not go to college. Their work is not in preparation for a college course, but for active participation in life. On the civic side of this preparation it is also coming to be recognized that the formal study of government and of history heretofore prevailing is inadequate. Here again, while a certain appreciation of civic facts within the mental capacity of pupils of high-school age is necessary, underlying this is the necessity for a point of view, an attitude, an interest, and a motive. Further, the point of view, the attitude, the interest, and the motives that really prepare the student for college entrance are also those that give the best preparation for civic life.

It is on this side of methods of cultivating right attitude, interest, motive, and right habits of civic thought and action, that the high school is learning from and building upon the "new civics" as applied to the elementary school. On the side of content, the high school is drawing upon the college and university subjects to a greater extent than formerly. Good citizenship depends not only upon knowledge of government, but also upon a broadly sociological viewpoint, and a knowledge of the social and economic relations that underlie government. Therefore sociology and political economy, as well as political science and history, are now drafted into the service of the high school in training for citizenship.

At this point appear certain possible dangers. First, there is the danger of doing with these other subjects what was formerly done in the case of government, viz, carrying over into the high-school courses that are adapted only to the college or university. Second, there is the ever-present danger of overloading the high-school curriculum. The historical enthusiast has been diligent in seeking to extend the time allotment of history; the political scientist urges more attention to government as such; political economy as a separate subject has its advocates, as has also sociology. The advocates of the last-named science are divided into at least two camps, those who favor the more or less abstract and theoretical treatment of the subject, and those who would make of it a course in "social service" or philanthropy. The real problem whose solution is urgent at the present time is how to make all these fields of knowledge contribute effectively to the civic education of the high-school pupil without overloading the course of study and without transforming the high school into a college.

One of the committees of the commission on the reorganization of secondary education appointed by the National Education Association in 1913 is the committee on social studies, which include history, civics, and economics. This committee has been, and still is, diligently working at this problem of civic education in its broad sense. One report of this committee was issued by the Bureau of Education as Bulletin, 1913, No. 41. A second report has been submitted in manuscript, and a final report will be issued in the near future.

CIVIC EDUCATION IN COLLEGES.

With reference to the trend of civic education in the colleges and universities, perhaps the most significant feature is the increasing attention given to training for public service as a profession. In addition to a multiplicity of general and special courses in political science, political economy, and sociology, departments are being added in an increasing number of institutions for the practical study of legislative and administrative methods with a view to training experts or leaders in civic life. This and other influences are tending to make of public service a career to be prepared for as are the careers of law, or medicine, or business. To prepare for such professional service in civic life is one of the proper functions of the university.

Only a small percentage of the students of the colleges and universities will engage in public service as a profession, however. The great majority are to be business or professional men, absorbed for the most part in the affairs of private life. Nevertheless, it is these college graduates to whom democracy should be able to look for leadership in thought and action in the ranks, and, as occasion arises, in public position.

To give the coming professional or business men or farmers some preparation for this lay leadership, the colleges and universities are offering increasing opportunities in the form of a wide variety of courses in sociology, economics, or political science, in the hope that a certain portion of the students will somewhere in the course find opportunity to elect some subject of a social or civic character. Nevertheless, one of the questions discussed most earnestly by national conferences of college teachers of these subjects is, How can we arouse greater interest in these subjects and in civic matters generally, on the part of larger numbers of students?

One device resorted to in the hope of increasing the general interest of students in civic matters, and incidentally in the civic or social subjects, is the organization of civic or good-government clubs. Such clubs exist in a considerable number of colleges, and in some cases at least afford valuable support to the regular work of the curriculum. Yet in six institutions visited this year in which such clubs existed the clubs included a total membership of less than 100 out of an aggregate student enrollment of about 12,000.

In the University of North Carolina, however, there is a North Carolina Club (similar to the Georgia Club at the State Normal School at Athens, Ga.) which is itself a federation of "Home-county clubs," the latter being clubs of students from the several counties of the State. Each of these clubs is making an intimate, concrete study of the conditions and problems of its home county—social, economic, political. Through the federation, the results of the work of the several county clubs are brought together into an organized mass of first-hand knowledge about the State of North Carolina. From these clubs there will go back into every section of the State farmers, business and professional men, school-teachers, and housekeepers, with a knowledge of local and State conditions, and, what is more important, an interest in their own civic life. One of the secrets of the success of the North Carolina and Georgia plans is that the students are not studying, primarily, abstract economic and political and social questions, but are learning "to know their own community" in its relation to their own interests. On the basis of such work the broader and more abstract principles of political and economic life acquire new interest, and the departments of the university devoted to these subjects are expanding as might be expected.

A further partial answer, however, to the question how to interest larger numbers of college students in the social and civic subjects will doubtless be found in the reorganized civic work of the elementary and, especially, of the secondary schools, by which a point of view, an attitude, an interest, and a motive, will be cultivated, that will lead the college entrant to want to know more of the subjects which the higher institutions are offering with increasingly liberal hand.

CIVIC ASPECTS OF VOCATIONAL EDUCATION.

By cultivating efficiency in the economic life of the community, vocational education contributes to the civic training of the pupil. Nevertheless, vocational education may be essentially selfish or uncivic in its character. That is, its motive may be to enable the individual worker, or the individual employer, to satisfy his own economic interests without due regard to the interests of others, or of the community as a whole. A program of civic education must include provision for vocational training; but, on the other hand, sound vocational education not only affords unusual opportunity for civic training of the most practical and far-reaching character, but demands that such civic training be given.

The broader civic aspects and opportunities of vocational education have so far received comparatively little attention, but they are now forcing their way into the foreground. The new law establishing continuation schools in Wisconsin, for example, requires that in them "citizenship" shall be taught. The questions as to what should constitute a course in citizenship in a vocational school, how it should differ from a course in citizenship in the ordinary high school, if at all, and how it may be related most directly and most effectively to the main purpose of such schools, are demanding answers. A similar situation exists in Boston and elsewhere. The Bureau of Education includes attention to this phase of civic education in its plans for the coming year.

CIVIC EDUCATION IN RURAL COMMUNITIES.

One of the greatest educational problems of the present is that of reorganizing and redirecting rural education. This is a part of the still broader problem of the readjustment of rural life to meet the changing conditions of the times. The rural educational problem involves that of providing adequate instruction and training to enable the child, or the adult, for that matter, to understand his rural community and his relations to it, and to take his place effectively in his community life. The solution of this problem involves many things—first of all, of course, an understanding of the significance and nature of the changes that are so profoundly affecting rural life. It involves, again, the question of suitable texts and other printed material which, of course, must be quite different from those required for the civic education of the foreigner. Few textbooks exist that are really suitable for vital work in civics, and probably there is none that is adapted to the peculiar needs of the rural community. Federal and State Governments, through their departments of agriculture and other channels, issue much good material; but comparatively little of it is really in available form. We also come back to the problem of the

teacher, which is a much more serious matter in the country than in the city. This brings us again to the work of the high school, the normal school, the college, and the summer school, and to the distribution of suitable literature devoted to the immediate problems of the rural school and community.

COOPERATION IN BEHALF OF CIVIC EDUCATION.

These are some of the more important aspects and tendencies of civic education at the present time. The subject can not be closed, however, without reference to the increasing interest and activity, on the part of many widely different educational and civic organizations in all parts of the country, in the promotion of effective civic education. Heretofore these organizations have worked along their respective lines, largely independent of each other. One of the most promising tendencies at present is that toward organized cooperation among many of these agencies through a common channel. During the last year the committee on civic education of the National Municipal League took the initiative for the establishment of a "clearing house," through which information should be gathered on every phase of the subject, thus making available to all who are working in this field the best thought and experience to be found anywhere relating to the problem as a whole or in its parts. With the cooperation of this committee, the Bureau of Education has established a Division of Civic Education, which has undertaken to perform the clearing-house function referred to. A number of organizations are now cooperating through its channels, including the National Municipal League, the National Education Association, the American Political Science Association, the Committee on Immigrants in America, women's clubs, and others. Cooperation has also been established with school authorities, normal schools, universities and colleges, and teachers in every part of the country. The Division of Civic Education of course has the advantage of close cooperation with the other divisions of the bureau, such as those of higher, secondary, rural, vocational, and home education, the Division of School Gardens, etc. That the work of this division meets a real need is clearly indicated by the generous and appreciative response to its efforts from the schools and others interested in the development of a better citizenship.

CHAPTER XIX.

NEGRO EDUCATION.

By Thomas Jesse Jones,

Specialist, Bureau of Education.

Contents.—State supervisors—The Jeanes fund—Teacher training—Educational meetings—Church boards and private donations—New educational buildings—Cooperation.

Material progress in the two chief problems of Negro education—better trained teachers and more helpful supervision—was made during the past year. In Virginia, Kentucky, and Arkansas, where State supervisors of Negro schools have been longest at work, the effectiveness of their efforts is constantly increasing. Results in these States have been so encouraging that the General Education Board, cooperating with the State departments of education, has now placed supervisors in the States of Alabama, North Carolina, and Georgia. Tennessee has also decided to appoint a special supervisor of Negro schools. The Jeanes fund county teachers, in their visits to rural schools, not only supervise the industrial work of the school, but also aid the teachers in other ways. The Phelps-Stokes fund makes appropriations to the work of the Jeanes fund, and, in cooperation with the Bureau of Education, is inaugurating a plan for a bureau of information concerning private schools. The Slater fund is interesting itself more and more in the training of teachers, particularly in the encouragement of county teacher-training schools, whose aim is to supply teachers to rural schools. These agencies work together in every way possible and are constantly evolving new plans for supplementing each other.

STATE SUPERVISORS.

The following brief statement sums up the activities of the State supervisors:

(1) The promotion of a practical education, by lending aid to county supervising teachers in their organization of industrial classes, by organizing boys and girls into agricultural clubs, and by encouraging the purchase and cultivation of small plats of land for school gardens.

(2) The improvement of present school facilities by the consolidation of rural schools and the proper classification and gradation of all schools, by the organization of school improvement leagues, and by interesting the white people of the community in the work of the school.

(3) The improvement of teachers by developing the teacher-training work of State normal schools, by devoting attention to State and county teachers' meetings, and by personally promoting among the teachers a spirit of service.

From this wide range of activities each supervisor has selected the activities most suitable to the State in which he is employed. An exhaustive survey of the schools of three counties in Alabama was made by the supervisor of rural schools and the supervisor of Negro schools in order to obtain detailed knowledge of conditions. Every school in the three counties was visited. The consideration given to the Negro schools was as complete as that given to the white schools. In most cases the visit was made in company with the county superintendent. An effort was made to impress the facts about the school upon some patron and upon the teacher, so that an intelligent local interest in the school would be created. Later the knowledge will be used to improve the county educational systems.

In Arkansas detailed statistics concerning the public schools for Negroes were collected and special attention was given to teachers' meetings and institutes. Arkansas is active in building new schoolhouses for Negroes, and the supervisor gives invaluable suggestions as to plans for the buildings and grounds.

In Georgia the supervisor adopted the new plan of having a special Jeanes fund teacher assist him in his work. As these State supervisors have a whole State to cover, they can not spend much time in one place. Accordingly, it was considered wise to have a teacher stop for a week or two in the county to stimulate the interest which had been aroused in school improvement and industrial work by the supervisor's visit.

The work of the North Carolina supervisor was concentrated on the 19 counties that have county supervisors. He visited all of these counties except one, spending several days in county, township, and community meetings. Mr. Newbold, the supervisor, reports that he—

> has been able to organize 13 counties for the purpose of developing home-makers' club work. The counties cooperated with the General Education Board, each giving $50 or more to the work. The traveling supervisor for this work in Virginia was secured to visit each of the 13 supervisors in North Carolina to help them in the preliminary stages of their work.

At a demonstration conference held May 26–27, 1914, in Raleigh, N. C., these home-making club agents or supervisors received special

instruction in their work from a representative of the Bureau of Plant Industry.

A course of study for public and private Negro schools has also been worked out, following a conference of the leading school men in the State. It is expected that another conference will be held to discuss this course of study before it is presented to the schools for adoption.

In Kentucky and Virginia school improvement and industrial supervision have developed steadily. In the States that have had supervisors longest, as well as in the States where the supervisors are just beginning their work, the confidence of both whites and Negroes has been won.

THE JEANES FUND.

The Jeanes fund is now in its fifth year. No additions have been made to the fund except an appropriation of $2,500 to its work from the Phelps-Stokes fund. The plan of the Georgia supervisor for having a Jeanes fund teacher assist the State supervisor gives promise of development. The Jeanes fund divides its work as follows:

Supervising industrial teachers, 1913–14.

States.	Supervising teachers.	Number of counties.	Salary paid by fund.	Salary paid by counties.	Average (total) salary.
Alabama	11	11	$3,552.50	$225.00	$343.40
Arkansas	9	9	2,675.00	280.00	328.30
Florida	6	6	1,790.00	120.00	318.30
Georgia	16	15	4,320.00	725.00	315.30
Kentucky	1	1	315.00	.....	315.00
Louisiana	12	13	3,199.50	1,498.00	391.45
Maryland	2	2	420.00	385.00	402.50
Mississippi	15	15	4,375.00	445.00	321.30
North Carolina	15	15	3,802.50	1,092.50	326.30
South Carolina	11	11	3,115.00	390.00	318.65
Tennessee	5	5	1,645.00	120.00	353.00
Texas	5	5	1,335.00	90.00	285.00
Virginia	10	11	2,497.00	885.00	338.25
Total	118	119	33,042.00	6,255.00	333.05
Special teachers	4	.....	1,220.00	.....	.....
Grand total	122	.....	34,262.00	.....	.....

SALARY AND LENGTH OF SERVICE.

Average (total) salary for 29 men, $360.85.
Average length of service for men, 7 months 3 days.
Average (total) salary for 89 women, $323.95.
Average length of service for women, 7 months 6 days.

TEACHER TRAINING.

The Slater fund, in cooperation with county superintendents, is fostering teacher-training schools whose object is the inexpensive training of Negro teachers in the county where the teachers live. The schools are parts of the public-school system. A sufficient num-

ber of these schools would supply a far stronger teaching force for the Negro rural schools. Conditions of service, small pay, and short term of school now make it practically impossible to secure teachers from outside the county to teach in public schools. The result is that many of the positions in county schools are filled by teachers whose schooling is little better than that of the pupils they teach. The plan of strengthening a county school by adding teacher-training subjects to its curriculum was first tried in Tangipahoa Parish, La. The superintendent felt the need of better teachers and decided to train them at home. He interested the Slater fund in his plan, and results were so satisfactory that the fund is now aiding four such schools and has promised to aid others—four in North Carolina, three in Arkansas, and several in other Southern States. That educators think well of the plan is indicated by the following opinions selected from a number recently published by Dr. James H. Dillard.

Supt. Luther Elrod, Jackson County, Ga.:

We have already begun something of that kind in our county. * * * The board of education has recently erected a building at a cost of something like $1,000. They erected it for the use of a white school, but it was discontinued after the first year. Near this, not more than a quarter of a mile, is a Negro school of a hundred or more pupils. It is my purpose to convert this new house into an industrial school for Negroes. I have planned also to get some land that surrounds the building for an experiment farm. The State college at Athens will cooperate with us in having this conducted on a scientific basis.

Former State Supt. Henry J. Willingham, Alabama:

The idea, in my opinion, is a most excellent one; by judicious management such a school can probably be maintained without additional machinery in a considerable number of counties of Alabama. The county boards, of course, hold the strategic point in bringing about such an arrangement. With the beginning of next year's work under the new law in this State allowing county boards to employ assistants to the county superintendent, this additional feature will be brought to their attention in the hope of accomplishing something along the line suggested

State Supt. J. Y. Joyner, North Carolina:

I approve most heartily of your suggestion of a county industrial training school for Negro teachers. Certainly one of the most serious obstacles to progress in the Negro schools is the inefficiency of the teachers. The salaries paid them in most counties will not command well-trained teachers, and home provision for inexpensive training of the county teaching force, such as you suggest, is in my opinion both wise and practical.

In addition to the stimulus to teacher-training schools, there has been an increased interest in teachers' meetings and institutes. In Arkansas five industrial summer normals were held, enrolling 750 teachers; in North Carolina monthly letters of progress have been issued to the supervisors, and a meeting was held December, 1913, in which the leading educators of the State discussed at length

plans for improvement of Negro teachers. Kentucky reports that every county in the State having a considerable number of Negro teachers must hold a teachers' institute of one week's duration. The other States are becoming more or less actively interested in summer schools for Negroes. Appropriations were made in Georgia, Alabama, and Louisiana for this work. In some instances the State appropriation is supplemented by the Slater fund. Many of the private schools also hold summer sessions.

The following list of summer schools is furnished by Monroe N. Work, of Tuskegee Institute:

Institute for Colored Youths, Cheyney, Pa.; North Carolina Agricultural and Mechanical College, Greensboro, N. C.; National Religious Training School, Durham, N. C.; Wilberforce University, Wilberforce, Ohio; Lane College, Jackson, Tenn.; Tuskegee Institute, Tuskegee, Ala.; West Virginia Colored Institute, Institute, W. Va.; Christiansburg Institute, Christiansburg, Va.; Virginia Union University, Richmond, Va.; Hampton Institute, Hampton, Va.; Summer School for Negro Ministers, under the auspices of Nashville Institute for Negroes, Nashville, Tenn.; Bowling Green, Mo.; State Normal Agricultural and Industrial School, Nashville, Tenn.; St. Paul Normal and Industrial Institute, Lawrenceville, Va.; Thyne Institute, Chase City, Va.; Princess Anne Academy, Princess Anne, Md.; Fort Valley Normal and Industrial School, Fort Valley, Ga.; Agricultural and Mechanical College, Orangeburg, S. C.; Prairie View Normal and Industrial College, Prairie View, Tex. State-aided summer schools were held as follows: Little Rock, Hope, Pine Bluff, Brinkley, and Dermott, Ark.; Austin, Clarksville, Dallas, Waco, Terrell, Atlanta, Mexia, and Fort Worth, Tex.; and an institute in each county in Alabama.

EDUCATIONAL MEETINGS.

November 12, 1913, the third annual session of the Conference of Negro Land-grant colleges was held in Washington, D. C., in connection with the Association of American Agricultural Colleges and Experimental Stations. Among the subjects discussed were: "What shall we expect of these schools?" "Place of agriculture in our system of education." "What are individual schools doing?"

State teachers' associations were held during the year as follows: Montgomery, Ala.; Atlanta, Ga.; Louisville, Ky.; New Orleans, La.; Jefferson City, Mo.; Tulsa, Okla,; West Tennessee Educational Congress; Negro Teachers' Association and School Improvement League of Virginia; Conference of Principals and Teachers of Secondary Schools of Virginia.

In 1914 the principal meeting was the National Association for Teachers in Colored Schools which met at Savannah, Ga., July 30 to August 2. This meeting was one of the largest and most enthusiastic ever held by the association. The National Negro Educational Congress met in Oklahoma City, July 7–10. In connection with the Sixteenth Conference for Education in the South there were two special conferences on the Negro, held at Richmond, Va., April 15–18.

The conferences were presided over by Dr. James H. Dillard, president of the Negro Rural School Board, and were—

attended by white school officials, including superintendents of public instruction, State supervisors of industrial and elementary schools, school principals, members of educational boards and workers in the United States Bureau of Education, as well as by colored school officers.

The spirit of the conference was—

characterized by a frank discussion of the best methods of helping Negro boys and girls to better living, better farming, and better home making through the medium of the common schools. Northerners, southerners, white men, and black men came together on the platform of better schools for the South.

A similar conference was held at the 1914 meeting of the Southern Educational Association. A new movement for race cooperation was inaugurated at the Young Men's Christian Association student conference presided over by Dr. John R. Mott. Cooperation of church and school and of white and Negro religious and educational leaders was stressed.

CHURCH BOARDS AND PRIVATE DONATIONS.

No large donations or increases in the annual appropriations to denominational schools were made during the past year. The American Missionary Association, under the management of the Congregational Church, started a campaign for a million-dollar offering as an emancipation jubilee endowment fund for the higher educational institutions connected with the associations. The Freedmen's Aid Society of the Methodist Episcopal Church also started a campaign for a half-million dollars for its schools, $100,000 to be raised in colored conferences and $400,000 in white conferences. The denominational boards are, however, strengthening their work by mutual aid. The agents of the American Church Institute for Negroes, the American Missionary Association, the Presbyterian Board of Missions for Freedmen, the Freedmen's Aid Society of the Methodist Episcopal Church, the American Baptist Home Missionary Society, the Jeanes and Slater Funds, and the Phelps-Stokes Fund met in Pittsburgh for the third time. Their plan is to work out the details of cooperation so that much duplication in their work for Negroes will be eliminated.

Of the private donations to Negro education during the year, probably the most significant was the offer of Mr. Julius Rosenwald to duplicate, up to $600, the money raised in any rural district in the South for a Negro school building. Mrs. Elizabeth Ellicott, of Baltimore, Md., by the terms of her will, probated May 20, 1914, provided that her estate, valued at $150,000, should after the death of her husband be devoted to the establishment of a school for the educational and social training of the colored race of the State of Maryland.

By the terms of the will of Miss Lucy Belknap, of Louisville, Ky., $10,000 has been set aside to be spent for the education of colored girls in the city of Louisville.

NEW EDUCATIONAL BUILDINGS.

The strong interest in Negro public and private schools is evidenced in the list furnished by Monroe N. Work, of Tuskegee Institute, of new school and library buildings erected and planned during the past year.

Public schools.—In Washington, D. C., money has been provided for a new $250,000 building for Normal School No. 2; also for a new colored high school. The Cuyler Street public school, Savannah, Ga.; cost $55,000. The city council of Petersburg, Va., voted $100,000 to build two new colored schools. In March, a report from Nashville, Tenn., stated that a $200,000 high-school building had been promised the colored people by the school authorities. At Norfolk, Va., the school board appropriated $34,922 for a new colored school building. In Fanwood Township, N. J., $15,500 was appropriated for a 4-room school building for colored people. At Method, N. C., a $7,600 training school for Negroes has been erected; $1,200 of this amount was raised by colored people; the Jeanes Fund gives the equipment and will pay the salaries of the industrial teachers. The school board of Marion, Ark., special school district, accepted plans for a concrete and brick building for a negro schoolhouse that is to cost approximately $6,000. Within the last two years the Negroes of Caroline County, Va., have built twenty-two 3-room ungraded schools to cost $1,200 each, and one 3-room graded school costing $1,800. There are under construction three other schools to be ready for use this autumn; two are 2-room schools costing $1,200, and the other is a 4-room building costing $2,500.

Private schools.—A dining hall with a seating capacity of 500 is being erected at West Virginia Institute for Colored Youth. The Woman's Christian Missionary Society of Indianapolis has purchased 200 acres of land at Hopkinsville, Ky., on which an industrial school is to be established. The Baptist association at Saluda, S. C., purchased 18½ acres of land on which is to be located a normal industrial high school. At West Falls Church, Va., the corner stone of the Providence Heights Industrial and Agricultural School for colored people was laid. At Birmingham, Ala., there is being established the Birmingham Baptist College. On September 16, the Central Park Normal and Industrial Institute was opened near Savannah, Ga. This institution is under the auspices of the African Methodist Episcopal Church. Memphis, Tenn., has been selected for the location of the proposed Negro Baptist theological seminary which is being established by the Southern Baptist Association, white, in cooperation with the National Baptist Convention, colored. The various societies and organizations of the Roman Catholic Church are carrying on an active educational campaign among the Negroes of both the North and South. The Sisterhood of the Blessed Sacrament, Miss Drexel, mother superior, has just opened a $100,000 parochial school in the Harlem District, New York. This is reported to be one of four schools that are to be opened. The others are to be in Boston, Cincinnati, and St. Louis. This will make a total of 16 schools that Mother Drexel has founded. At Tipton, Mo., an $80,000 building is being erected for the State Industrial Home for Negro Girls.

Library buildings.—In Houston, Tex., a $15,000 Carnegie library for colored people was opened. Mr. Andrew Carnegie has given $25,000 for the erection of a building for the colored branch of the Carnegie library at Nashville, Tenn., and $10,000 for a building for a colored library at Greensboro, N C. The Eastern Colored Branch Public Library at Louisville, Ky., has been opened. The site for this building cost

$5,000, of which sum $4,000 was paid by the city and $1,000 by the colored citizens. The buildings cost $22,674. A colored Carnegie library costing $12,000 has been opened in Savannah, Ga., and work has been begun on a colored Carnegie library in New Orleans, La.

COOPERATION.

It is especially significant that while the Negroes are doing more and more for themselves in the way of raising money for schools and interesting themselves in educational meetings, the agencies mentioned above are greatly increasing their efficiency by cooperating with one another and by urging cooperation of white people and Negroes for school improvement. Especially noteworthy in this respect are the efforts of the denominational boards to reach a working agreement with one another; the increasing tendency of special funds for Negro education to be directed by local school authorities; the increased attendance of white school officials on meetings where Negro education is discussed; and the efforts of the State supervisors of Negro schools to interest the local school authorities and prominent local citizens in public schools for the colored race.

CHAPTER XX.

RECENT PROGRESS IN THE EDUCATION OF IMMIGRANTS.

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Contents.—I. The problem: Inability to speak English—Illiteracy of foreign-born whites—School attendance.—II. Legislation affecting immigrant education: New Jersey's direct method—Acts authorizing evening schools—Camp school legislation—Compulsory education of illiterates—Special jurisdiction over immigrant education.—III. Special administrative features: Terms, sessions, and classes—Importance of summer sessions—Inadequacy in number of schools and classes—Teachers of foreigners—Special certificates—Compensation to teachers of foreign classes—Classification of pupils—Standardizing attendance—Deposits to secure regular attendance—Advertising school facilities.—IV. Content of English instruction.—V. Methods of teaching.—VI. Private agencies and immigrant education: Young Men's Christian Association—Church work among immigrants—Education of immigrants in the industries—Patriotic organizations—VII. Special organizations: The North American Civic League for Immigrants—Baron de Hirsch fund—Educational alliance—Organizations among foreigners.—VIII.—Adult immigrant education in Canada.

I. THE PROBLEM.

INABILITY TO SPEAK ENGLISH.

In 1910 there were 2,953,011 foreign-born white persons in the United States 10 years of age and over unable to speak the English language, i. e., 22.8 per cent of the entire foreign-born population in this country. Of those 21 years and over, 2,565,212, or 22 per cent of our foreign-born white population, were so disqualified. Between the ages of 15 and 20 there were 330,994. In urban communities 22 per cent, as against 25.2 per cent in rural communities, were unable to speak English. New York, Pennsylvania, Illinois, Massachusetts, Ohio, New Jersey, Texas, Wisconsin, and Michigan each have over 100,000. New York State leads with 597,012. In the city of New York alone 421,951 persons are laboring under this disability, while in the eight principal cities of the United States the number totals 833,404. During the period 1900 to 1910 the number of white persons of foreign birth admitting inability to speak English increased 1,735,731.

Inability to speak English is obviously a barrier to friendly intercourse between Americans and foreigners. It affects to a large extent the employment of the foreign born; also their assimilation, since no foreign-born person can become a citizen of the United States until he speaks the English language. The importance of

removing this obstacle to naturalization and assimilation therefore requires the attention of legislatures and educators. It is the point at which immigrant education must begin.

ILLITERACY OF FOREIGN-BORN WHITES.

Illiteracy is a serious obstacle to the foreign born in his ability to acquire English. In 1910, the number of illiterate foreign-born whites 10 years of age and over was 1,650,361; more than one-half of them unable to speak English. It is a reasonable presumption that almost all of these illiterates were non-English-speaking.[1] Of the foreign-born white population $12\frac{7}{10}$ per cent can not read or write in any language. This is true of but 3 per cent of the native white population. Of the males 21 years of age and over, $11\frac{9}{10}$ per cent, or 788,631, are illiterate. In New York alone 362,025 persons 10 years of age and over can not read or write. Pennsylvania, Massachusetts, and Illinois follow in the order named, with over 100,000 each. Over 245,000 are under this handicap in New York City. Thus the city, State, and Nation are confronting a definite condition of illiteracy among the foreign-born whites.

SCHOOL ATTENDANCE.

The foregoing facts are especially significant as affecting school attendance. Only 651,506 foreign-born whites attended school in 1909–10, i. e., 3.6 per cent. The greatest number attending school belong to the class from 10 to 14 years of age; from 15 to 20 years of age, slightly over 102,000 attended; and for 21 years and over, only 35,614. In other words, against 358,330 of the first group, of whom 56,405 did not speak English, 308,492 attended school. Against the 932,274 of the second group, of whom 330,994 did not speak English, only 102,639 attended school. Of the last group, against 2,565,612 unable to speak the language, only 35,000, or 1.3 per cent, attended school.

Immigrant education deals with two classes—child and adult. The first is of minor significance, since compulsory attendance upon public schools is general. Special attention upon the part of the teacher will give the child a command of English sufficient to give him a grading. Education can then take the same course as with the native child. The real problem begins at the age of 16. Beyond this point, with one exception, compulsory-education laws do not apply. With the minor between the ages of 10 and 21 years there is some tendency to study English or secure industrial training; but with the adult immigrant aptitude and desire for instruction are less decided, habits of thought are more fixed, and ability to acquire languages largely lost. In the education of the latter class special difficulties are presented.

[1] No figures are available to substantiate this presumption.

II. LEGISLATION AFFECTING IMMIGRANT EDUCATION.

The types of schools adapted to the education of the immigrant are evening, industrial, part-time, and camp schools. Provisions creating and maintaining such facilities show the beginnings of new State policies on the subject.

NEW JERSEY'S DIRECT METHOD.

The most definite legislation for foreigners is to be found in New Jersey. In 1907, before the subject of adult immigrant education had been much discussed, the legislature passed a law, providing that—

> the board of education of any school district may establish and maintain a public evening school or evening schools for the instruction of foreign-born residents of said district over 14 years of age in the English language and in the form of government and the laws of this State and of the United States.

With the idea in mind of insuring uniformity of administration and instruction, provision was made that the State board of education in preference to local authority—

> shall prescribe rules for the proper control and management of such schools, for the inspection thereof, for the granting of certificates to teach therein, and for carrying into effect the purposes of this act. The course of study in each of such schools and any changes therein shall be submitted to and shall be approved by the State board of education.

Centralized control and supervision over this type of training is further strengthened by the following provision:

> The State board of education may from time to time appoint suitable persons to assist in carrying out the provisions of this act and to encourage the establishment of such evening schools.

State aid to local schools was authorized equal to that raised locally.[1] This is the first instance where the necessity for special facilities for foreign-born residents of the State is recognized by statute.

ACTS AUTHORIZING EVENING SCHOOLS.

Other States have taken a less direct method by providing evening schools for native as well as foreign born persons. Statutes enabling local school authorities to establish and maintain such schools are of two kinds: First, those permitting local officials to use their discretion; second, those making the establishment of evening schools in larger cities mandatory. In both cases the specific provisions generally take effect automatically upon the petition of a stipulated number of persons. Massachusetts, exemplifying the second type, was one of the first States to authorize the establishment of evening

[1] Under this statute Hoboken in 1907 received the sum of $700; in 1908 it received $500, and the city of Elizabeth $1,846.36; in 1909 the cities of Hoboken, Caldwell, Elizabeth, and Princeton received altogether $9,260; in 1910 Princeton received $50; in 1911 Caldwell and Hoboken received together $2,200; and in 1912 Hoboken alone received $4,000.

schools. In 1857 the legislature authorized what were called "adult schools." In 1870 cities and towns of over 10,000 population were required to conduct evening classes in mechanical drawing. The scope of these provisions was again extended in 1883, when such municipalities were required to maintain night schools for persons over 12 years of age and to teach certain common branches. The claim of the foreign born to special facilities was partially recognized in 1898 by the addition of the subjects of English language and grammar to the list of required courses.

In New York the maintenance of free night schools is optional with the board of education of any school district or city. In Pennsylvania evening classes are optional with the board of school directors in each district, except that in districts of the second, third, or fourth class establishment is mandatory if the parents of 25 or more pupils apply for such accommodation. Similar provisions for night schools are made by the other principal "immigration" States.

CAMP SCHOOL LEGISLATION.

Many foreign-born laborers are isolated in labor camps, where opportunity for acquiring English is limited. The nature of employment on railways, highways, etc., demands the use of little English, because the foreman generally speaks the vernacular of his laborers. To provide educational facilities for labor-camp men, New York has made an innovation in school extension by authorizing the establishment of camp schools. In 1912 the commissioner of labor was authorized to establish and supervise classes in labor camps for adult and minor aliens, but no funds were appropriated. To make this new type of school a recognized part of the educational system, the legislature, in 1913, amended the education law by providing for the creation of "temporary school districts." Such districts may be established outside of cities and union free school districts "whenever any considerable number of persons shall have been congregated in camps or other places of temporary habitation who are engaged in the construction of public works" under contract with the State or any municipality. Each district is entitled to a stipulated quota from the State school funds. Additional support is made a charge upon the particular State or municipal funds appropriated for the construction of the public works. Immediate supervision is vested in an official of the State department of education, i. e., in the superintendent for the supervisory school district within which the temporary district and camps are located. General control and supervision are centralized in the State commissioner of education. Following the example of New York, the California commission of immigration and housing, created in 1913, was authorized to—

cooperate with proper authorities to extend this education for both children and adults to labor camps and other localities from which the regular schools are not easily accessible.

These provisions point the way for extending the usefulness of the public schools, and if followed by other States will go far to facilitate the assimilation of the many thousands of foreign laborers employed in construction work.

COMPULSORY EDUCATION OF ILLITERATES.

In 1887 Massachusetts began an experiment in the compulsory education of illiterate minors. Such persons between the ages of 14 and 21 years were required to attend some school if they were in continuous residence for one year in a city or town where an evening school is held. These early provisions prescribed, as a test of literacy after instruction, "the ability to read at sight and to write legibly simple sentences in the English language." In 1906 this test was interpreted by legislation to mean—

> in the year 1906 such ability to read and write as is required for admission to the second grade; in the year 1907 * * * to the third grade; and in the year 1908 and thereafter * * * to the fourth grade.

In 1913 the test was raised to the completion of the fourth grade. In 1909 the labor law was amended to prohibit the employment of any minor within the provisions of these acts, unless he is an attendant at a public evening school. The effect of all this legislation is to require that every minor between the ages of 15 and 21 years, employed or unemployed, married or single, who is unable to pass the requirements in reading, writing, and spelling for the completion of the fourth grade of the public school shall be in regular attendance at some public evening school while in session.

No other State has gone so far as this in attacking the evil of illiteracy. The significance of this legislation becomes apparent when taken in connection with the fact that Massachusetts, with an exceedingly mixed population, has a percentage of illiteracy among foreign-born whites lower than 15 other States, and among those native born of foreign or mixed parentage lower than 30 other States.[1]

SPECIAL JURISDICTION OVER IMMIGRANT EDUCATION.

From time to time States have created so-called immigration commissions for the purpose of inducing the migration of desirable persons as settlers. Examination of the laws creating such commissions shows that many of them were authorized to disseminate information with reference to the educational facilities of the respec-

[1] $12\frac{7}{10}$ per cent, and seven-tenths of 1 per cent, respectively.

tive States, as in Kansas and Missouri, for instance; but such provisions were primarily for the object of inducing immigration.

In 1908, however, the State of New York passed a law establishing a commission of immigration to inquire into the condition, welfare, and industrial opportunities of aliens, and its provisions included an inquiry into the educational facilities provided for immigrants. The recommendations of the commission caused the passage of a law in 1910 establishing a bureau of industries and immigration under the department of labor. This law authorized the distribution of the names of alien children arriving within the State and required the commissioner of labor to cooperate with various educational authorities—

to devise methods for the proper instruction of adult and minor aliens in the English language and in respect to the duties and rights of citizenship and the fundamental principles of the American system of government, and otherwise to further their education.

Massachusetts, in 1913, when providing for the appointment of a commission on immigration, required it to make a full investigation into the educational facilities for immigrants. New Jersey, in 1911, and Rhode Island, in 1914, also took similar steps.

Peculiarly significant is the action of California, which, in 1913, in the law creating the commission of immigration and housing, provided that—

The commission shall cooperate with the proper authorities and organizations, Federal, State, county, municipal, and private, with the object in view of bringing to the immigrant the best opportunities for acquiring education and citizenship. To that end it shall procure from, or with the consent of, the Federal authorities complete lists giving the names, ages, and destination within the State of all immigrant children of school age and such other facts as will tend to identify them, and shall forthwith deliver copies of such lists to the superintendent of public instruction or the several boards of education and school boards in the respective localities within the State to which said children shall be destined, to aid in the enforcement of the provisions of the education law relative to the compulsory attendance at school of children of school age. The commission shall further cooperate with the superintendent of public instruction and with the several boards of education in the State to ascertain the necessity for and extent to which instruction should be imparted to immigrants within the State and to devise methods for the proper instruction of adult and minor aliens in the English language and other subjects.

III. SPECIAL ADMINISTRATIVE FEATURES.

TERMS, SESSIONS, AND CLASSES.

The normal term during which classes in English are conducted is from about the first of March. In some cities the term is only 6 or 8 weeks; in others it is as long as the day-school term. In New York 7 towns conduct classes for less than 40 nights; in 17, the terms are less than 60 nights; while the average for 31 towns and cities

throughout the State is only 60 nights per year. The rule of the Rochester Board of Education is typical:

> The fall term of the evening schools shall begin on the second Monday of October, and continue until the Christmas recess. The winter term shall begin on the first Monday of the new year, and continue according to attendance.

In New York City the evening-school season is divided into two terms. The first, for elementary schools, usually begins in October and ends about the middle of December; the second term begins early in January and continues until the total number of sessions equals 90. The Massachusetts immigration commission reports that of 63 cities and towns conducting evening schools during the school year of 1912–13, classes are held less than 50 evenings in 28 cities, less than 60 evenings in 15, and 60 evenings or more in 20 cities or towns. The term begins in October and ends in March. The law of Connecticut fixes the period at 75 evenings. In Pennsylvania the school law provides that if an evening school is established it must be kept open for a term of not less than 4 months in each year, each of said months to consist of 20 days. The last term of night classes in Scranton, Pa., commenced October 6, 1913, and closed March 12, 1914—5 months in all. The average length of term in New Jersey is 16 weeks. The term in St. Louis is 75 nights. California appears to have the longest night-school term. The State law requires evening schools to continue throughout the day-school term. This amounts to practically 9 months of instruction.

There is similar diversity in the number of evenings per week. The standard is 3 evenings per week, although in certain States and cities instruction is given on 5 nights. For example, in New York it is customary to give instruction 3 evenings to classes of foreign-speaking people. Classes are held on alternate evenings. The usual combination is Monday, Wednesday, and Friday, although in some localities sessions are held on Monday, Tuesday, and Thursday nights. This is the practice in Rochester and Buffalo, N. Y. New York City has 4 meetings a week for most evening classes, but also has a number of twice-a-week groups.

In California the law allows instruction to be given on 5 nights, i. e., on each evening following a day session, but San Francisco, owing to a curtailment in expenditures on account of the earthquake of 1906, has been able to maintain classes only 3 nights per week. In New Jersey the practice is to hold classes on 4 evenings per week. The Pennsylvania law requires, in effect, that sessions shall be held 5 nights per week, although the exact provision is "each of said months to consist of 20 days." Philadelphia has 4 sessions for trade schools and 3 for elementary and high schools. Scranton conducts classes Monday, Tuesday, Wednesday, and Thursday evenings. Providence, R. I., has 4 evenings per week for high and technical schools, and 5

evenings for elementary and domestic science schools. St. Louis conducts classes 3 times a week. Denver has a unique arrangement, some groups coming 5 times a week, some 3, and some 2.

Ordinarily 2 hours per evening are spent in instruction. The session usually extends from 7 to 9 p. m. or from 7.30 to 9.30. Some teachers make a practice of holding a session of about an hour and three-quarters and then having a half hour informal discussion, or a short period for answering questions. The matter of hours per evening usually depends upon the particular locality, the trades engaged in by students, the time at which they are able to finish their evening meals and report for study, and upon the distance from the school building. It has been found by experience that a session of $1\frac{1}{2}$ to 2 hours is plenty long enough for foreign-speaking students, inasmuch as most of them are employed during the day. The length of session and the time of meeting must be adapted to the needs of foreign students, as may be seen from the following extract from the fourteenth annual report of the New York City superintendent of schools for 1911–12: "In all evening schools the session lasts 2 hours, the hours for beginning varying from 7.15 to 7.45 p. m., according to the sex of students and the local demands." Chicago makes the hours of instruction per evening optional with the principal, although in most States the matter of determining the number of hours is generally left by law to the discretion of the local board of education. The Rochester board fixes the hour of beginning at 7.30 p. m. and of closing at 9.15. Scranton at 7.30 and 9.30 p. m., dividing the session in two periods of 1 hour each. The school law of Pennsylvania requires a session to be at least 2 hours in length.

IMPORTANCE OF SUMMER SESSIONS.

There has been considerable criticism of the length of the evening-school term. Extending ordinarily from October until March, it does not reach as large a number of foreigners as could be reached by postponing the closing date or maintaining a summer term. Unfortunately, evening classes for adult foreigners stop at about the time the period of greatest immigration sets in. The months of March, April, and May are usually those in which the greatest number of foreigners come to our shores. This increased volume of immigration continues throughout the summer until as late as September. Furthermore, evening schools are conducted through the period of greatest industrial activity, and consequently many pupils are unable to attend who at other times would be in a position to do so. In 1910 the education authorities for New York City, appreciating the importance of summer evening school instruction in English for foreigners, opened one in Manhattan. In 1911 two such schools

were maintained, and in 1912 four schools were opened, two of which were in Manhattan and two in Brooklyn. The innovation was appreciated, for the total registration rose from 2,302 the first year to 3,933 in 1912. Philadelphia has no summer term, notwithstanding that it has a large immigrant population. In 1909 a joint committee of the civic club of Philadelphia and the Philadelphia research and protective association commented on this fact in the synopsis of its report on the educational opportunities of foreigners immigrating to Philadelphia in the following language:

> This committee desires to draw attention to the exceeding short term of the night school. It extends only from October to March, and there is no summer term, at which time the largest number of immigrants is arriving.

INADEQUACY IN NUMBER OF SCHOOLS AND CLASSES.

The number of classes provided by different cities is far from adequate. The importance of the education and assimilation of foreigners is seldom appreciated, and appropriations are insufficient to provide the requisite teaching force. In Seattle, Wash., there were 20 classes for adult immigrant instruction. In San Francisco in December, 1913, there were 24 classes in 8 different schools, but in June, 1914, the number of classes had diminished to 12 in 7 different schools. The 1913 report of the St. Louis superintendent of schools shows that 25 classes were maintained during the year. The recent report of the New Jersey immigration commission shows that only 20 cities in the State conducted one or more evening classes for foreigners, the the total number of classes in 1911–12 amounting to 190. Newark had 70 classes; Elizabeth, 15; and Jersey City, 14. The fifty-fifth annual report of the board of education for Rochester, N. Y., shows that only 7 classes were maintained. Failure to appreciate the need of increase in accommodations is shown by the fact that 19 cities in the State of New York, with a population of 10,000 to 30,000, the foreign-born population varying from 1,000 to 7,000, have no public night classes where immigrants could learn the English language. Only 31 cities in the State report that they maintain evening schools for foreigners. In Massachusetts 67 cities and towns conducted such classes in 1912–13; and in California 4 cities. In Oregon, only 1 city, Portland, has night schools for foreigners.

TEACHERS OF FOREIGNERS.

The qualification of teachers of adult foreigners has been the subject of considerable dispute chiefly because of the difference of opinion that exists with regard to the use of English or the foreign language in instruction. It is claimed, on the one hand, that a teacher who uses the English language only will naturally compel the student to

use that language, while the teacher who speaks the foreign language will be apt to use it too frequently in making explanations, and consequently pupils will fail to acquire the habit of "thinking" in the English language. On the other hand, there are those who contend that the native language must be used in the first instance as a medium for bringing out the idea; that a teacher who is able to use the foreigner's native tongue will be more sympathetically inclined toward him and will have a better understanding of his language difficulties, his national characteristics, customs, and experiences.

It should be noted that few cities have ever consistently experimented with the second method, because of the difficulty of securing teachers who have specialized in such languages as Italian, Hungarian, and Polish. Thus, the San Francisco school officials make an effort to get teachers for the foreign classes who speak at least two languages, but find that it is exceedingly difficult to get such teachers with sufficient training in teaching methods. Teachers speaking languages other than German, French, and Italian, have proved particularly difficult to secure. In Seattle no effort is made to employ foreign-speaking teachers. In New York City the policy of employing foreign-born teachers has been abandoned, the school authorities having come to the conclusion that such teachers are not a success.

The Massachusetts commission of immigration comments upon this subject as follows:

> Certainly, if teachers speaking the foreign languages are not employed, interpreters are needed to meet and enroll those pupils who are unable to speak any English and to help the regular teachers in the first few lessons.

In Buffalo, N. Y., an advanced stand has been taken upon this question. The superintendent's annual report for the year 1911 makes the following statement:

> To bring a better and more adult class of teachers to the difficult work of teaching the foreigner in the evening schools, the board, in the new syllabus, has deemed it advisable to raise the requirements for entrance to the examinations in this grade. The minimum age limit has been fixed at 25 years, and "the candidate, besides passing written examinations in grammar, rhetoric, spelling, and composition, must also show to the satisfaction of the examiners ability to converse intelligently and fluently in some foreign language." These requirements are expected to improve the standard of teachers taking up this difficult line of work and should result in more competent instruction.

One other fact is particularly noticeable with reference to the selection of teachers. Some school authorities apparently consider it important to take only day-school teachers for evening class work, on the ground that others would not have the necessary experience in the science and art of pedagogy. The essential difference between the methods necessary to instruction in the night school and those in the day school is not recognized. The Massachusetts immigration

commission reports that 62 out of 67 cities in the State conducting night schools in 1912–13 employed practically all of their night-school teachers from the day-school staff. The commission regards this as a serious handicap, commenting upon it as follows:

> In the cities and towns where classes meet four nights weekly—in one case five nights—it is obvious that the day-school teacher can not furnish the necessary vigor, enthusiasm, and special preparation; while, on the other hand, the demand that the evening school makes on her strength leaves her unable to do the best teaching of which she is capable the next day. So it is a costly system from both standpoints.

SPECIAL CERTIFICATES.

Some cities and States have recognized the value of granting special certificates to teachers who desire to teach foreigners. Buffalo, N. Y., requires a special examination and gives a special certificate. In California the State law requires that French, German, Italian, and Spanish must be taught in at least one school in every city of the first class, and students graduating from these classes are allowed a special certificate to teach languages in the evening schools. In New Jersey the law establishing evening schools for foreign adults requires that every teacher employed in such a school shall hold a special certificate. This provision has been interpreted to mean, under the ruling of the State board of education, that, in order to obtain such a certificate, a teacher must take an examination in the language of the pupils to be taught. However, as the ruling worked hardship on many communities unable to procure teachers so qualified, a new ruling was made that after July, 1913, any regular teacher's certificate would permit the holder to instruct foreigners in evening schools, and a limited special certificate might be granted to any person not less than 18 years of age who could successfully pass an examination in English and elementary civics, relating particularly to common, municipal, and State regulations as to franchise, police, etc. This certificate was to be good for three years, at the end of which time it might be made permanent upon the holder passing a successful examination in the history of the United States. This ruling has considerably facilitated the employment of suitable teachers for foreign students.

COMPENSATION TO TEACHERS OF FOREIGN CLASSES.

The salary of evening-school teachers throughout the country is generally computed on the basis of a stipulated amount per evening of instruction. The amount paid varies according to the size of the city and the difficulty in teaching, and ranges from 75 cents to $3 per evening. The law of Maryland, in providing for evening schools in Baltimore County, stipulated that the minimum salary should be $2.50 per evening. In Massachusetts the immigration commission

reports that the salaries of night-school teachers range from 75 cents in one town of over 10,000 to $2.50 an evening. Out of 66 towns reporting, 25 stated the salary to be between $1.50 and $2 per evening. In St. Louis the evening-school instructors receive $2.75 per night. There instruction is given three nights per week. This would pay an evening-school teacher only $8.25 per week, and throughout a term of 75 nights only the sum of $206.25. It is customary for day-school teachers throughout the country to teach in the evening schools as a means of increasing their income. Taking advantage of this attitude, school boards make a nominal allowance for night instruction, and the result has been to secure an inferior grade of teachers for the evening school.

CLASSIFICATION OF PUPILS.

Immigrants in the English classes are generally classified on three different bases: First, on the basis of ability to speak the English language; second, on the basis of nationality; third, on the basis of previous education in the native country.

Relative ability to speak English is the starting point of all grouping. If the pupil speaks no English, he can be put at once into the beginners' class. If he speaks some English fairly well, he can be tried out in an intermediary class. If he speaks considerable English with fair fluency, and has had some instruction in this language, he belongs in an advanced class. In the larger cities attention to this basis of classification is quite marked. As regrouping becomes necessary after the beginning of the term, this test is most frequently applied. In the smaller cities, this principle is very infrequently acted upon; pupils of all degrees of ability to speak English are thrown together, usually with disastrous consequences to classes and teachers. Teachers find difficulty in adapting to advanced pupils subject matter suitable to the beginner, and the interest of both classes is eventually lost.

In cities with a small number of foreigners attending night schools, classification on the basis of nationality is more frequent.

In no portion of the United States, except along the western coast, is racial and national prejudice serious; and classification on the basis of nationality is for utilitarian purposes chiefly. In the western part of the country, however, particularly in California, Oregon, and Washington, where there is a distinct racial prejudice against the oriental, orientals in both day and night schools are segregated to a considerable extent. In Seattle, the Japanese are grouped together if they themselves desire such an arrangement. In San Francisco one class was conducted last year in what was called the Russian school, made up exclusively of Russians. Another class was made up entirely of French and Italian students, and a few classes almost entirely of

orientals. In Merced County, Cal., there is a Scandinavian high school in a settlement chiefly Scandinavian. In Buffalo, N. Y., there are Polish evening classes for the section of East Buffalo populated by Poles. There are also classes containing Italians only. In Rochester one or two classes are made up exclusively of Poles in a school located near the Polish section, and at least two schools have classes of Italians exclusively. The same practice, for the sake of convenience in teaching, is followed in New York City, Chicago, Philadelphia, and Boston.

Classification on the basis of previous education has never been followed consistently in any school. The reason for this is obvious: Most teachers do not speak the native language of the pupil, and are accordingly unable to ascertain the previous education of the prospective student. The failure to ascertain the previous education of a pupil leads to many unfortunate situations in the schoolroom. It is common to find adults who are highly educated in their native language grouped with pupils who have had no training whatsoever in any language. Teachers are obliged to spend a great deal of time in making explanations to the illiterate and uneducated students, while the more educated pupils sit in idleness. It is of course unreasonable to expect that where there is but one class in a school any classification on this basis or any other can be made; but in those schools in the larger cities where a great number of foreigners attend and where a great many nationalities and degrees of education are represented there is no reason why classification on the basis of previous education should not be practicable.

STANDARDIZING ATTENDANCE.

There are many conditions affecting regularity of attendance upon night schools by adult immigrants. An inquiry among immigrants shows that the following causes discourage attendance: (1) *Distance from the school.* This is particularly true of laborers who are housed in labor shanties along highways, railways, etc., usually remote from a school building. (2) *Fatigue from employment.* This is probably the most common excuse given for not attending evening classes. The men are employed at heavy manual labor during the day, and as their minds are untrained it is a matter of considerable difficulty for them to devote the necessary energy to an evening school. (3) *Ridicule.* Many persons, especially adults well along in years, are unwilling to attend evening schools for fear of ridicule by friends or their own children. Adult female immigrants are particularly susceptible to the ridicule of their children. (4) *Hours of employment.* Some men labor excessively long hours and are not in condition to attend evening school, while still others work in night shifts, and therefore find it impossible to attend because their labor begins at

about the same hour the evening classes commence. (5) *Inability to understand the teacher.* The fact that teachers do not speak the native language of the pupils operates, in the beginning at least, to keep many students away. (6) *Methods of instruction.* Methods of instruction are criticized by foreign-born students as inefficient. The students lose interest after the first week or two because rules of grammar, phonics, and monotonous exercises are forced upon them. They tend to become discouraged and eventually to drop out. (7) *Inappropriate subject matter.* Like the antiquated methods of instruction, subject matter unsuited to the foreign mind and temperament also discourages pupils and causes them to leave the evening classes. Adult immigrants are not concerned with the ideas and experiences that interest children. Consequently lessons that do not appeal to their daily experience and deal with their environment, business and trade relationships, domestic life, etc., wholly fail to grip them.

DEPOSITS TO SECURE REGULAR ATTENDANCE.

To overcome these causes of nonattendance, many school authorities require a deposit to guarantee attendance, refunding the money at the end of the term if attendance has come up to a certain standard. So far 17 cities have reported that they require deposits. Philadelphia collects 50 cents from elementary students and $1 from evening and trade high-school students. These amounts are refunded upon attendance two-thirds of the term. St. Louis requires a fee of $1 of all classes for a term of 20 weeks. Boston requires 50 cents of elementary students, excluding minors coming within the compulsory education law. Kansas City requires $1 for all applicants over 20 years of age; Seattle $2 for all students; Newark $10 of elementary students who are nonresidents of the district and $25 of evening high-school students who are nonresidents. Other cities, like Detroit, require a deposit to cover breakage of material. Milwaukee requires a fee of 5 cents a week for pupils in cooking classes. Hudson, N. Y., requires a fee of $1, which is refunded upon an attendance of 100 per cent. Rochester and New York City charge no fee whatever. In Massachusetts $1 may be charged pupils other than compulsory-attendance students. This is a general law applying to the whole State and to all classes of cities.

ADVERTISING SCHOOL FACILITIES.

Publicity is an important factor in acquainting foreigners with our public evening schools, but the right kind of publicity is seldom used. Some school authorities confine themselves entirely to a brief notice of evening classes in newspapers published in English. Only a limited number of foreigners are reached in this way. On the other hand, some schools avail themselves of the newspapers printed in

foreign languages circulating among the people whom it is desired to reach. The editors and managers of these papers cooperate with the schools, and are always willing to insert items, from time to time, regarding school advantages, particularly with reference to English and civics.

Another common method of publicity is through circulars and posters. Frequently these are published in the English language, and although circulated in the foreign section, are not understood or widely read by the foreign-speaking people. Other school boards publish such circulars and posters in foreign languages, as, for example, in the cities of Rochester and Buffalo, N. Y., where they are distributed through the Polish and Italian sections. As a result an increasing number of students are secured from year to year and the facilities of the night schools are more accurately understood by the foreign population.

One medium of publicity is rarely ever utilized—foreigners' organizations. These, like the foreign-language newspapers, are nearly always glad to cooperate with the school authorities. It is usually possible to have announcements made at the weekly meetings of these organizations. In such a manner more definite and direct cooperation is secured between the schools and the foreigners themselves, and a much larger number of adults become interested in education.

To ascertain the general practice in the State of New York, a questionnaire was sent to the 31 cities conducting evening schools. In reply, 19 reported that they availed themselves of publicity; 11 posted notices in the English language in factories; 8 in factories, in the foreign tongue; 9 placed notices in English on school buildings, while 5 posted them in the foreign language; 18 served notice on the foreign population through English newspapers, and 9 through foreign-language papers; 13 sent notice through the children in the day schools; 10 cooperated with foreign churches and 13 with foreign societies. The cities of Schenectady and Mount Vernon reported that they used all the types of publicity described. Jersey City experiments with illustrated lectures in the foreign tongue to announce the classes and to attract students. Philadelphia and Pittsburgh utilize the American press and sometimes cooperate with foreign societies; they also publish circulars in the foreign tongue. Chicago uses these methods of publicity, but most of the western cities do not advertise their evening school facilities to any extent beyond newspaper notices, the matter of publicity not having been given any considerable thought. Even New York City occasionally has failed to make any appropriation for publicity, in which event principals and teachers have taken funds out of their own pockets to send out postal cards and notices to prospective students.

There is no legitimate reason why the usefulness of the evening schools and classes should not be extended by publicity. With the exception of Massachusetts, school authorities can not fall back upon the compulsory-education law to bring immigrants to school. The larger the number of students, the lower, of course, is the proportionate per capita cost for instruction.

IV. CONTENT OF ENGLISH INSTRUCTION.

The content of English instruction for foreigners is worthy of serious criticism. School authorities in general persist in adhering to the use of textbooks wholly unsuited to foreign-speaking students. Even in the same city textbooks differ in the various schools. Some schools use texts for adults that are in use by children in day classes; in others there are textbooks specially designed for foreign students and evening-school use. In still other schools no textbooks are used, the teachers having found the available textbooks unsuited to their students, or the school board having failed to furnish the type of text requested.

So far as could be ascertained, only one or two textbooks are in use adapted specially to a particular nationality. Ordinarily the same text is used for Poles and Italians, notwithstanding the wide diversity in racial and national traits. Again, few texts are adapted to the experience of immigrants in this country. The subject matter chosen is usually wholly unsuited to the age, training, and attitude of the women and men taught. Thus one textbook devotes the first 15 or 20 lessons to expressions familiar among children, and pictures meant to appeal only to a child's mind. Further, the course in English for foreigners usually fails to give sufficient emphasis to the conversational side—the side the foreigner really needs. The foreigner learning English is little interested in such sentences as: "I have two ears. I hear with my two ears. I hear the sweet music with my ears." On the other hand, he is interested in practical conversation like the following, found in one book:

> Where do you work? I am working at the steel plant. Where is the steel plant? It is on Mill Street. How many days a week do you work? I work six days a week. Where do these men work? They work in the steel plant. Where do they live? They are living on Elk Street.

Finally, an unfortunate feature of the texts in use is the utter lack of any rational grouping of subjects or principle of arrangement. For example, in one popular textbook Lesson 1 deals with the following: "Number lesson," "New words," "Reading and action lesson for two pupils," "At the hardware store," and "Spelling lessons." Lesson 49 deals with "The cities of the United States." Lesson 50 has a conversation about iron ore. Lesson 51 has a reading lesson

about fruit and vegetables. In another text, fairly good from the standpoint of conversation, the following lessons appear: "Lesson 13, The seasons;" "Lesson 14, Fruits and colors;" "Lesson 15, A week's work at home;" "Lesson 16, A local friend;" "Lesson 17, The fire." These extracts are typical of practically all of the texts in use. It should be said that recent texts show marked tendency to organize and adapt subject matter more rationally to the use of foreigners.

V. METHODS OF TEACHING.

The method of teaching English and civics to foreigners is in a chaotic condition. Five fairly suggestive methods of instruction are employed by various teachers and instructors throughout the country. These are the visual, dramatic, laboratory, vernacular, and grammatical methods.

The visual method is employed more extensively than the others. It is used to some extent by practically all teachers. The teacher points out some convenient object in the classroom, gives its name to the class, and asks the individual pupil or the class as a whole to repeat the name after him. Many texts are so constructed as to bring this method into use in the first few lessons. While this method is frequently carried to an extreme, it is valuable in the teaching of the names of objects, and the expressions concerning them; it is practically useless, however, in dealing with expressions of motion and with abstract ideas.

The so-called "dramatic method" of teaching English has come into vogue in recent years, following the widely known work of Gouin and more recently the efforts of Dr. Peter Roberts, of the Young Men's Christian Association. Dr. Roberts has devised a textbook with *action* as the starting point. In this method the teacher goes through some motion or act, at the same time pronouncing the appropriate expression in English, and asking the pupils to repeat the expression after him, thus: "I go to the door, I turn the knob, I open the door." This method has proved to be of value in teaching expressions with respect to motion and action, but is wholly inadequate in teaching expressions regarding objects and abstract ideas. Pupils also make the criticism that teachers who employ this method habitually use too many expressions during the class hour, and as a consequence confuse the class. The chief criticism, however, is that the expressions taught in this way are not usually those of actual life and everyday experience, and are not of any particular value to the student in carrying on a conversation.

In a sense the laboratory method is the outgrowth of the visual method. It differs in taking advantage not only of the ordinary

classroom objects, but of other objects imported into the classroom for more detailed conversation and discussion. The chief feature of the method is to take the class on an excursion into some factory, city department, or institution, where practical, intelligent discussion concerning the environment is carried on. A teacher in one of the Rochester (N. Y.) schools employs this method quite successfully. He takes his class out upon the street and holds a conversation with them, teaching expressions with reference to direction, buildings, streets, and the local environment. He also takes his class to the nearest police station and fire department, where similar instruction is given. This is probably the closest approach to the ideal method of teaching English to foreigners that has yet been devised.

The vernacular method brings into play the native language of the pupils taught, and depends for its success upon the teacher's fluency and efficiency in the foreign tongue. Certain teachers in the San Francisco, Philadelphia, Chicago, Buffalo, and Rochester schools who are able to speak foreign languages make use of this method. The value of it lies in the ease with which rules of grammar, technical terms, idiomatic expressions, and terms concerning abstract ideas can be explained to the pupils. It has been severely criticized by school authorities and educators on the ground that there is danger of the teacher using too much of the native language of the pupil. This is perhaps true to an extent, but with the definite rule that the foreign language should be employed only for the purpose of making a necessary explanation, when it is impossible to explain the expression or idea in the English language, the vernacular method is probably the most efficient in getting the idea of the English expression immediately into the pupil's mind. Once this is done, it becomes unnecessary to use the foreign language further, and attention can then be devoted to the important thing in language instruction, i. e., associating the idea directly and immediately with expressions concerning it.

This method is appreciated by those who are not educators, as will be shown by the following extract from a synopsis of a report made in 1909 by the civic club of Philadelphia and the Philadelphia research and protective association on the educational opportunities of foreigners immigrating to Philadelphia.

> One evening school deserves special mention in this report * * *. The average attendance during the year has been 550 * * *. Twenty-six classes are in operation, one of which is composed of women and girls. Six advanced classes are taught in English. "The other classes are taught partly in Italian and partly in English. The principal speaks many Italian dialects and teaches her teachers enough Italian to enable them to explain the new language in the Italian. The groundwork being solid, however, the progress is rapid when once pupils understand the fundamentals of the language."

The New Jersey immigration commission, in its recent report, remarks that:

> Other authorities, however, believe that the teachers should have some knowledge of the language of the pupils in order to make clear from the first moment, the word, the phrase, or the idea which is presented to the pupils.

One of the speakers at a public conference held under the auspices of the New York-New Jersey committee of the North American Civic League for Immigrants in New York City in May, 1913, referred to the value of this method in striking terms:

> In my experience there are two types of teachers who are successful in this field: First, the man or woman who speaks the language of the pupils and has had the ambition and perseverance to master English to the point of being able to teach it—one who has gained what we may call an American point of view, and has at the same time a sympathetic understanding of the students in his class. Second, the American man or woman who has genius as a teacher, wide sympathies, few prejudices, and the gift of recognizing the common human elements in all peoples; who feels that the only barrier between himself and his pupils is that of language.
>
> In my opinion, as a rule, the first is the better. Between the teacher who speaks the native language and the pupil there is no barrier of language. It is wonderful how even a slight knowledge of the language helps. At only a few words of greeting, perhaps, eyes will light up at the effort to get nearer, and a big hole will be made in the wall of separation. The teacher who knows the language will have a knowledge of home conditions, customs, traditions, and religious observances which will enable him to avoid giving offense or making blunders which sometimes cause the students to leave.

Many educators and instructors have the mistaken notion that adult immigrants can be trained in English through the medium of grammar, phonics, and rules. Teachers fail to appreciate that the average immigrant coming to this country is not only not interested in rules of grammar, but has not the formal grammatical knowledge of his own language that is a prerequisite to this kind of instruction in English. Frequently a grammatical rule is explained in English, and the pupils fail entirely to comprehend its real meaning and significance, and therefore become disgusted with the course of instruction and drop out.

Another speaker at the conference on the education of the immigrant above referred to comments on this form of instruction:

> Continued drill on phonics wearies the foreigner, whose ears are not trained to the niceties of the English language. So we must endeavor to make our drills practical; always in combination with words that are vital to the community life of pupils.

VI. PRIVATE AGENCIES AND IMMIGRANT EDUCATION.

An increasing number of private agencies are concerning themselves with adult immigrant education. These agencies are National, State, and local in scope. Some are philanthropic, some industrial organizations; others are religious, political, patriotic, and fraternal societies or associations. A few of these are engaged in a social-legislative

program to increase educational facilities; some are seeking to "Americanize" the immigrant; others describe their object as of a general, social, and educational nature. The activities in which these organizations are engaged range from classes in English for foreigners to district visiting and domestic training. The great majority of these agencies are maintained by private subscription, although some derive their income from the immigrant and his countrymen. A large number are supported by industrial establishments. A few are backed by foreign governments. Many spring from the newer work of the churches. Thus a number of the large religious associations and missionary societies, without neglecting the field of foreign missions, are now devoting a great deal of time and attention to the immigrant problem.

YOUNG MEN'S CHRISTIAN ASSOCIATION.

Notable work has been done by the Young Men's Christian Association. The report of the international committee for the year 1912–13 shows that there were organized into English classes no less than 21,914 immigrants, and into naturalization classes 1,693—a total of 23,607. More than 193,339 attended lectures during the year. Associations in 28 States and in 6 Provinces of Canada carried on 1,221 classes. Over 300 local associations are engaged in educational work for foreigners, and 44 different nationalities were reached during the year in this way. The main volume of the association work was done in Massachusetts and Pennsylvania. In Massachusetts and Rhode Island 45 associations were interested, having 458 teachers, 289 classes, and 5,624 students, with a total attendance at lectures of 42,725. In the State of Pennsylvania 28 associations were working, with 190 teachers, 167 classes, 2,184 students, and 130,230 attending lectures. In New York 33 associations were interested, having 130 teachers, 126 classes, and 2,148 students. In Illinois 17 associations were engaged in the work, reaching 2,042 students; and in Ohio 14 associations, reaching 1,374 students. The attendance and classes increased during the year 34.9 per cent over the year preceding.

The association first comes into contact with the immigrant at the principal ports of embarkation in foreign countries, where it has secretaries. These men meet and talk with the alien before he takes the steamer; they advise him in regard to the United States, directing him to the Young Men's Christian Association in the city to which he is destined. At the port of arrival the organization has secretaries who meet the immigrant, advise him as to American customs and conditions, and give him general assistance.

Following this first contact with the alien, the association endeavors to reach him with educational facilities. The international committee has a department of industrial education, under the supervision

of a secretary, who organizes the work in the various States, outlines courses, and correlates the educational activities of the various local and State organizations.[1]

The annual report for the year 1912–13 shows that over 1,500 teachers were employed in this educational work for immigrants and others. Most of these teachers were volunteers and came from colleges, shops, offices, stores, the professions, and the trades. Apparently no uniform basis of qualification for teachers is applied, especially when volunteer workers are taken. Fortunately, young men of education, usually college men, have volunteered to teach. No effort is made to secure instructors with ability to speak foreign languages, since the method of teaching eliminates the foreign tongue as a factor in learning English.

The method of securing students is worthy of note. Association secretaries are sent in search of the foreigner in boarding houses, saloons, candy stores, steamship-ticket agencies, private banks, private houses, factories, shoe-shining parlors, and societies. Many aliens are reached through the card of the association given by representatives at the ports of embarkation in Europe, and are induced thereby to call at the respective associations in the towns and cities where they locate. Advantages and opportunities for instruction are advertised in newspapers, in circulars in foreign languages, and on bulletin boards. Frequently some foreigner of more active disposition is charged with the duty of working up a class among his friends and fellow countrymen.

The association cooperates with churches of all denominations. It has cooperated with public schools in furnishing teachers; with social settlements, societies, and fraternities; with the Sons and Daughters of the American Revolution; with boards of trade, boards of health, associations of operators, employers of labor, and others. It has made surveys of communities showing local needs, and in many instances stimulated public-school authorities to take interest in immigrant education. Thus in Lackawanna, N. Y., the association furnishes the teachers and supervision, and the city the school buildings. In small localities in the anthracite region of Pennsylvania the organization furnishes teachers and also backs up the public schools with what are known as "miners' institutes," through which men are prepared for the more technical training of the industrial schools.

The subject matter used in the association courses in English dwells largely upon the everyday experiences of the immigrant, covering his domestic life, industrial experiences, and employment. Each set of lessons is composed of several groups. These are conveniently

[1] For further description of the educational work, see Report of the Commissioner of Education, 1913, p. 573.

arranged for use in charts and lesson leaflets. The arrangement of each lesson is patterned after the Gouin method. The subjects covered by the citizenship classes include civics, American history, government, industries, etc. In Chicago special lessons have been prepared on the eight leading city industries. In Pennsylvania, where classes are conducted in connection with local public-school authorities, practical talks are given on health, alcoholism, travel, labor unions, shops, and clubs. Where a definite course is carried out it generally comprehends instruction in the rights, privileges, and duties of citizenship; the main features of the United States Constitution, essential facts about the National, State, and city governments; the principal laws and regulations of interest to an immigrant, such as workmen's compensation, compulsory education of children, etc.

In the city of New York several meetings for different nationalities were held with stereopticon lectures, national songs, and speeches. In Pittsburgh a great singing contest was held with 1,000 present. Various foreign societies competed for a large silken American flag. In Tacoma, Wash., banquets were held for foreign men at Thanksgiving and Christmas, opportunity talks being given by college men which created great enthusiasm. Similar gatherings were held in San Francisco. Association men from the Massachusetts Agricultural College participated in Polish farmers' days and presented problems in scientific agriculture.

The Young Women's Christian Association carries on similar work on a smaller scale. In New York City it conducts the International Institute for Young Women, located in the foreign quarter.

CHURCH WORK AMONG IMMIGRANTS.

Many of the denominational bodies now give special attention to the problem of adult immigrant education. In the Roman Catholic Church the subject is cared for mainly by the local parishes and dioceses. Thus a church in Rochester, N. Y., recently started a class in English for foreigners. Sometimes a naturalization class is conducted, but usually aid in this direction is given personally by the priest in charge. The Italian and Polish Catholic Churches do much in immigrant education. The priest is a constant adviser in matters pertaining to American customs and regulations.

The Congregational Church many years ago established a missionary at Ellis Island, N. Y. In the year 1913 the immigrants passing through this port into American life numbered 892,653. The missionary stationed at this gateway meets the bewildered who need counsel, and gives directions especially concerning our public-school system.

The Scandinavian Sailors' and Immigrant Home, located in East Boston, Mass., takes care of about 1,500 sailors and immigrants a

year. The Swedish Orphanage, at Cromwell, Conn., has 80 children under its protection. The Danish-Norwegian work has three homes, located, respectively, at Brooklyn, Boston, and Chicago. These are intended to help the "newcomer" girl, by sheltering her and giving her first lessons in American ways.

The Latin-American Institute, at West Tampa, Fla., exists to train teachers particularly for the Cubans.

The Congregational Home Missionary Society relates itself to different educational institutions that are preparing teachers to labor among the people of our country who still speak foreign languages.

The educational work for foreigners by the Presbyterian Church is sufficiently typical of church activity in this direction to justify some detail. The Presbyterian board of home missions reports work carried on in 64 immigrant communities. Bohemian, Slavic, Italian, Magyar, Syrian, Armenian, and Scandinavian are the principal nationalities dealt with. Thirty organized churches are involved and 70 workers. In 1913 the sum of $80,000 was appropriated. In the Presbytery of New York (Richmond, Manhattan, and the Bronx) there are 16 centers, reaching Italians, Bohemians, and Hungarians principally. In April, 1908, a separate department to deal with immigrants in America was created under the board of home missions, with a superintendent in charge. The headquarters are in New York City. The prime purpose of the department is, of course, religious, but it engages in investigations, the dissemination of information, instruction and cooperation, with the secondary purpose in mind of educating the immigrant. It aims to arouse a greater interest in the alien on the part of American churches; to suggest and outline plans for English classes, civic clubs, vacation schools, and industrial training. To insure rational treatment of local conditions, it is prepared to make surveys through its survey agency, and such surveys have been made in New York, Newark, N. J., Elizabeth, N. J., and Utica. Upon the basis of these investigations recommendations are made for local work.

The missionaries or teachers who are employed are selected more particularly for ability in religious training, yet considerable attention is paid to their educational qualifications and ability to speak foreign languages. To facilitate the qualifications of men for this field the board of home missions has announced a series of immigration fellowships. These carry $1,000 each and are open to recent graduates of theological seminaries duly licensed or ordained by a presbytery. The appointees are sent to some foreign country for a period of 18 months or more, where they study national characteristics, needs, languages, etc. Each holder of such appointment contracts to serve the board upon his return from study for not less than three years. A number of such men are already in training. They are expected to do some educational work and supervision, in addition to ministerial duties.

Other facilities for training lay-workers are provided, two of which are specially adapted to developing young women for immigration work—the Presbyterian Training School at Baltimore and the Missionary Trining School at Coraopolis, Pa. The latter has enrolled students representing Bohemian, Slovak, Ruthenian, and Italian.

Of the numerous missions, settlements, and branches throughout the country conducted by churches and church societies, some conduct only English classes, others engage in general educational work for foreigners, covering domestic science, industrial training, and lectures, while still others conduct some domestic education in the homes or do district nursing. Practically all are supported by private contributions.

EDUCATION OF IMMIGRANTS IN THE INDUSTRIES.

Employers are coming to see the necessity of teaching their foreign-born employees the English language and something of the rules of safety. Experience shows that a large proportion of industrial accidents are due to foreigners not understanding the orders of the boss or foreman. Furthermore, a canvass of many employers of foreign-born workingmen indicates that a knowledge of English is urgently needed for the employment. This is particularly true of railroads, steel plants, and foundries. The latter group of industries has made a special effort for adult immigrant education in the English language, and in some instances the movement has developed into a broadly organized system of education. Two typical cases are selected—the Casino Technical Night School, East Pittsburgh, Pa., and the school maintained by D. E. Sicher & Co., of New York City.

I. CASINO TECHNICAL NIGHT SCHOOL.

A number of industrial corporations in the vicinity of Pittsburgh organized an industrial training school for their foreign-born employees. A staff of paid expert instructors was put in charge. The school is carried on through the cooperation of the Turtle Creek school board, which has rented a public-school building to the management on the basis of $3 per month for each room. Only 25 per cent of the pupils are residents of the Turtle Creek district, the others coming from the districts in the vicinity. The training is open not only to employees of the companies supporting the undertaking, but also to those of other plants. In 1904 the enrollment was only 100; last year it was almost 700. There are over 40 teachers in the faculty, and the expense budget exceeds $15,000. A tuition of $25 is charged, making it about one-half self-supporting. The local industries contribute an annual amount of about $6,000 to $7,000.

The school year is nine months, i. e., from about September 1 to June 1. A two-year preparatory course and a four-year course in the fundamental principles of engineering are given. Regular classes meet Monday, Wednesday, and Friday evenings of each week. Each evening is divided into three periods, the first beginning at 6.15 p. m., and the last ending at 9.15 p. m. The term is divided into two semesters of 19 weeks each. New students may enter at the beginning of each term. The

teachers are selected with a view to their ability, not only as specialists, but as to active participation in practical work, broad training, and wide experience. Students are classified by personal interview and by examination at the opening of each term. All new students are put on probation for the first four weeks.

Upon the opening of the school it was found that many of the foreign applicants wishing to take industrial or technical training had an inadequate command of English. Many also needed preparatory work in the common branches. To provide this preliminary instruction, courses in English, spelling, reading, writing, grammar, and arithmetic were developed, with emphasis on shop terms in use in the various trades.

The school gives training in electricity, engineering, mechanical drawing, shop practice, wood turning, foundry work, etc. Little attention is paid to citizenship, except as an incident to English training. A course in household arts for women reaches a number of foreign girls.

2. D. E. SICHER & CO., NEW YORK CITY.

The firm of D. E. Sicher & Co., a muslin-goods plant of New York City, employs a large number of foreign-speaking employees, many of whom are illiterate. A cooperative scheme was worked out whereby the company furnished a classroom and partly financed the plan, while the New York City Board of Education furnished teacher, supplies, and general educational supervision. Officially the experiment was put on record as a part of Public School No. 4, thus eliminating the need of red tape in its establishment and maintenance. The purpose of the school was not so much to teach English as to give a very simple form of industrial training, to which learning English was an incident. The class was made up of factory employees. Forty girls graduated at the end of the term, representing a variety of immigrant nationalities. Training was given in dressmaking, arithmetic, reading, writing, spelling, English letter writing, etc. There was a drawing class, stereopticon lectures, music, and a traveling library. Effort was made to teach the girls how to care for their health and person, how to use the telephone book, and other matters tending to promote their welfare and efficiency. At the end of the course a "certificate of literacy" was given each graduate by the board of education.

The Pennsylvania Railroad Co. publishes several pamphlets instructing employees. One deals with resuscitation from electric shock; another is a set of lessons in Italian and English dealing with the tools used in track construction. The Delaware, Lackawanna & Western Railroad Co. also has published lesson sets for its foreign employees and has cooperated with the Young Men's Christian Association in conducting classes. The Southern Pacific issues instruction books in Japanese. The Joseph & Feiss Co., a clothing firm of Cleveland, Ohio, instructs 200 foreign employees in practical English. The Standard Oil Co. and General Chemical Co., of Bayonne, N. J., are planning to cooperate with the local board of education in teaching English to 900 employees who are unable to use the language. The company officials propose to allow the men time off on pay during the day—amounting to four hours per week—until they acquire a vocabulary of 600 words, believing better results can be accomplished this way than if the men study at night. The companies will provide classrooms, heat, and necessary equipment, and the school board will

provide teachers. Instruction will be similar to that of the regular evening schools. The Witherbee-Sherman Co., of Mineville, N. Y., employs a domestic educator-nurse who attends sick and injured employees, gives the mother and children training in sanitation, personal cleanliness, care of health, cooking, sewing, etc. At Ellsworth Pa., the Ellsworth Collieries Co., through its sociological department, is giving instruction to its alien employees in "first aid to the injured," rescue methods, etc.

PATRIOTIC ORGANIZATIONS.

Patriotic organizations have found a special field of opportunity in the education of immigrants for American citizenship. A conspicuous example is the society of Sons of the American Revolution. At the national congress of the society at Denver in 1907 a committee on aliens was created and one-half the income of the society set aside to carry on the committee's work. The plan adopted limited activity to the publication and dissemination of information regarding citizenship, its rights and duties; the Government of the Nation and States; and general facts of interest and value to foreigners. The committee publishes a leaflet in English entitled, "Information for Immigrants concerning the United States—Opportunities, Government, and Institutions." This has been translated into the Italian, Yiddish, Polish, Magyar, Slav, Slovenian, Croatian, Swedish, Greek, Bohemian, German, Norwegian, Danish, and Lithuanian languages. Thousands are distributed by State societies and chapters throughout the country among manufactories, mining camps, employers of labor, settlement workers, social workers, patriotic societies, and night schools. The society has frequently cooperated with public-school authorities in furnishing speakers on citizenship, and aiding foreigners in obtaining first and second papers.

VII. SPECIAL ORGANIZATIONS.

THE NORTH AMERICAN CIVIC LEAGUE FOR IMMIGRANTS.

The Massachusetts committee of the North American League for Immigrants deals with the education problem by direct contact with the immigrant, in cooperation with other agencies. The New York-New Jersey committee deals with it indirectly by investigation and promotion of legislative reforms and amendments. The organization is national in scope and has branch committees in the principal eastern cities. Its aim is the civic betterment of the immigrant. The Massachusetts committee has an extensive scheme of educational work. Its agents meet immigrants at the docks and stations and furnish advice and information about America. It also publishes

pamphlets of advice for distribution among the newly arrived. The most noteworthy of these is entitled "Messages to New Comers," printed in English and other languages. These are distributed among libraries, schools, and individuals; 60 city libraries use them. The subject matter of these pamphlets covers such themes as "The United States—Its People and Its Laws," "The Need of Learning English," "The Story of the American People," "Naturalization," etc. In Boston alone 140 lectures in these subjects were delivered in 1912–13.

Nearly all the branches of the North American League have information bureaus, where aid and advice are given. One of the most important of these is the Immigrant Guide and Transfer Co., maintained at Ellis Island, N. Y., by the New York-New Jersey committee. This company has a staff of guides speaking a great variety of the immigrant languages.

BARON DE HIRSCH FUND.

This fund was established in 1891 for the benefit of Russians, Roumanian, and Galician immigrants. Its purpose is to teach the immigrant to become a good American citizen. Day and night schools are conducted in New York and other cities. Two special schools are also maintained: The Baron de Hirsch Trade School and an agricultural school at Woodbine, N. J. The fund has subsidized special classes for immigrants, day and night, at the Educational Alliance in New York City. Similar classes are subsidized in Boston, Brooklyn, Philadelphia, Baltimore, Chicago, St. Louis, Pittsburgh, and Cleveland.

EDUCATIONAL ALLIANCE.

The Educational Alliance was incorporated in 1889 and reorganized in 1893. It maintains a building and two branches in sections of New York City where the immigrant population is large. The purpose set forth is "to provide opportunities for the thousands of immigrants who come to the American shores, so that they may be able to adapt themselves to the new conditions and that they may readily assimilate American ideas and ideals." This object is carried out through day classes in English for adults, a school of domestic art and domestic science, civil-service classes, naturalization classes, manual-training classes, etc. In one branch is maintained what is called a "Breadwinner's College." Lectures are given in English and Yiddish on American history and civics, naturalization, and other subjects of importance in the education of the immigrant. The alliance has cooperated extensively with other organizations and schools in building up educational work. With the Baron de Hirsch fund, it has carried on special day and night classes adapted to immigrants.

A few brief references to a number of other organizations of this type will show the character of work done and the need of correlation. The People's University Extension Society of New York, incorporated in 1898, maintains free classes in domestic training and other practical subjects. It furnishes trained teachers in civics, history, and other subjects to various organizations. In one year over 220,000 persons attended its free classes. More than 85,000 attended lectures on the care of children. It has aided more than 1,000 societies with free classes and distributed over 425,000 pamphlets of advice to 500 societies in New York City. These pamphlets were published in Hebrew, German, Italian, Bohemian, and English.

The Lennox Hill Settlement was founded in 1894 by the Associate Alumnæ of Normal College. The settlement house is in a crowded tenement section of New York City. It conducts about 30 clubs and classes, a bureau of advice for foreigners, and neighborhood work. The nationality dealt with is principally Bohemian. The actual work is carried on by resident and volunteer workers and teachers.

In Rochester, N. Y., a housekeeping center is maintained in the Italian quarter, where classes for men and women, district nursing and home education, and a library are conducted. In Chicago is Hull House, with its many ramifications. In Boston is the Civic Service House, working out a new idea in community civic training.

There is urgent need for closer cooperation among the many philanthropic organizations now working independently on the problem of educating the immigrant.

ORGANIZATIONS AMONG FOREIGNERS.

A number of organizations composed mainly of foreigners are doing important work in the field of immigrant education. One of the most important of these is the Society for Italian Immigrants. This society has been in existence over 11 years. Its fundamental purpose is to assist and advise Italian immigrants in the United States. It has both Italians and Americans on its membership, and it is supported partly by contribution from the Italian Government. This society maintains a night school in the construction camp at the Ashokan Dam, N. Y., where there are many Italian laborers. Thirty or forty men from the camp attend classes in English and citizenship 5 nights each week for 12 months. There are two classes, one for advanced pupils and one for beginners. English, reading, writing, some arithmetic and geography, and something of American laws and customs are the subjects dealt with. Two teachers, one a woman experienced in teaching English and the other a young man of Italian parentage, compose the staff. Both act as advisers and dispense general information. An experimental school was also

carried on for five months in the Berkshire Mountains, where several hundred Italians were engaged in building a trolley. The company and citizens contributed toward equipment and maintenance. Much general information is disseminated by the society through its agents in charge of the "home" for Italian immigrants in New York City. Many thousands take advantage of this home annually; many are also advised by guides at the docks and ferries.

The Armenian Colonial Association was incorporated in 1893 to provide an educational and industrial institution for Syrian and Arabic speaking immigrants. The Italian-American Civic League, of New York, announces its purpose as that of civic education and naturalization of Italians in New York. It maintains 10 civic clubs, classes for civic instruction in various sections of the city, and branches of the naturalization bureau. The Hebrew Education Society, of Philadelphia, has a lecture hall and library and gives instruction in English, civics, telegraphy, typewriting, cigar making, dressmaking, etc. Another society in Philadelphia conducts classes in English and engages in various social activities. A German society has a library and night school, teaches German and English, American history, constitution, institutions, ethics, etc. A Polish society in the same city prepares young men for college, gives a two-year course, and has night classes in English, mechanical drawing, etc. At Cambridge Springs, Pa., is a Polish university maintained by the Polish National Alliance.

These are but a few of the many organizations engaged in some phase of educational work that are maintained by foreigners themselves. Results have not always been satisfactory; sometimes Americanization is retarded rather than accelerated by their activities. They are, nevertheless, an important element to be considered in any plans for treating adult immigrant education.

VIII. ADULT IMMIGRANT EDUCATION IN CANADA.

Canada affords a valuable instance of work of private organizations for foreigners. The Reading Camp Association, which has for its patron the Duke of Connaught and for its president a lumberman of Ontario, aims to educate the foreigner in the great labor camps along the railway lines and in the lumber regions. Schools have been established in 36 different camps along the frontier of Canada and in remote regions. The association has a force of about 40 secretaries and instructors, many of whom are employed in the camps in which they teach. The following extract from the annual report indicates the character of the work accomplished:

> For two successive winters we operated night schools at two camps 40 miles from Lorring, in the district of Parry Sound. Among the 130 men there were about 20

fellows who became deeply interested in their studies and were doing what little they could on matriculation subjects. Most of these boys spent their summers on the farms about 10 miles from the camps. In order to induce them to keep up their studies and so become camp instructors themselves, we sent J. J. Pearson, P. A., a graduate of Victoria College, to conduct evening classes and to teach them in their homes when he could not induce them to attend night school. The result was encouraging. * * * As it is, the immigrants who are located on our woodland frontier soon become discouraged on their schoolless, doctorless, roadless, undeveloped homesteads and leave the farms to swell our city slums.

CHAPTER XXI.

RECENT PROGRESS IN WIDER USE OF SCHOOL PLANT.

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CONTENTS.—Sources of information—Increase of miscellaneous occasions—Use for political purposes—Liberal letting regulations—Wider use with the aid of voluntary societies—Social and recreation centers—Adult education through lectures—Evening schools being socialized—Library extension through school branches—The high school as an art center—Extension of day activities—Adapting school buildings for community use—School extension in rural districts—Wider-use legislation.

This chapter is based largely upon information received in response to a general request sent out by the Commissioner of Education November 29, 1913. The scope of this appeal was given as "what has come to be called 'the wider use of the school plant,' the use of schoolhouses, grounds, and equipment for other purposes than the instruction of children during school hours," and it brought in a large amount of typewritten and printed material from school authorities throughout the United States.

The statistics concerning the extent of social centers were obtained through an investigation covering the months of February, March, and April, 1914, in which school officials recorded upon blank forms furnished by the Bureau of Education the evening occasions in the buildings under their charge.[1] There were also available, as supplementary aids, the informational resources of the department of recreation of the Russell Sage Foundation.

The movement to use the school premises for larger portions of the total utilizable period is advancing with such rapidity and showing such variety of aspects that a complete description of its present status is out of the question; only a summary of its newer features will therefore be attempted.

INCREASE OF MISCELLANEOUS OCCASIONS.

In the vast number of letters received from superintendents there is scarcely a dissent from the view that a wider use of the school buildings and grounds has come to be accepted as desirable. The most convincing evidence of this attitude is seen in the number and character of the occasions which call for the use of the school halls in

[1] The complete results of this inquiry are to appear in bulletin form.

the after-study hours of the day. In general this condition has come about through greater hospitality toward outside organizations. The largest class of bodies seeking such use of school halls is composed of the mothers' clubs, patrons' societies, and other forms of parent-teacher associations. Next in importance are the various taxpayers', ward, and town improvement associations. These groups naturally resort to the schoolhouse as the most convenient meeting place in the neighborhood. Allied with them are the women's civic clubs, housewives' leagues, and similar associations with civic and cultural objects.

Another large group of organizations meeting in the school buildings is made up of those engaged in some form of musical endeavor. These include bands, amateur orchestras, and choral and oratorio societies. To the school building have also come art clubs, natural history societies, Chautauqua circles, county historical societies, the Daughters of the American Revolution, and similar groups interested in self-improvement. Still another large class is composed, very appropriately, of Boy Scouts, Camp Fire Girls, junior chambers of commerce, and other bodies of young people with analogous aims.

In the rural districts the farmers' institutes and the grange meetings are frequently held in the schoolhouse.

The amount of use by sectarian and religious organizations is somewhat surprising. The reports show that, in various parts of the country, schoolrooms are used by Sunday schools and missionary societies, as well as for divine worship. Denominational athletic associations, church societies, Sunday-school teachers' training classes, and Young Men's and Young Women's Christian Associations indicate other phases of religious activities which are found upon public-school premises. One city reported that the Jews and one or two other sects were using the schoolhouses after 4 o'clock for sectarian instruction.

This is only a partial list of organizations that are meeting on school premises, but it indicates their general character. The liberal attitude observed by some school authorities toward requests from outside bodies is illustrated by an instance coming from a State in which school buildings can not legally be used for other than educational purposes without specific permission being granted at a town meeting. A superintendent in this State says that "the policy of our committee is, however, to allow the school plant to be used as freely as possible until objection shall be made." Such is also the practice in many other sections.

USE FOR POLITICAL PURPOSES.

"Two of our primary schools were used as voting places with entire success"—in these words a New Jersey superintendent relates the conclusion of a growing number of school officials relative to the feasi-

bility of using school buildings for political purposes. In Worcester, Boston, Los Angeles, Milwaukee, and a number of other cities the schoolhouses have for years been used as polling places during elections. Within the past year the same privilege has been granted in many other cities, in some to a notable extent. In Chicago during the spring elections of 1914, according to the report of the business manager of the board of education—

> 75 school buildings were used as polling places, and in only 6 of that number were violations of the rules reported by the school officials, the nature of the complaints being smoking, in a few instances, and tobacco chewing. No quarrel arose, nor was there any ungentlemanly conduct on the part of the male voters in the presence of the women or otherwise.

In Boston voting has been carried on in basements of public-school buildings for a number of years, and a special equipment for this purpose has been devised, which is stored away when not in use. In Seattle, Wash., all the school buildings erected during the past three or four years have been provided with special rooms in the basement, having direct outside entrance for use during elections and for other public purposes. In many cities the primaries as well as the regular elections are held on school premises.

There has also been an extension of the use of school buildings for political rallies. In Chicago during the election referred to above, 142 school buildings were rented for political meetings. The business manager writes that—

> In no instance was it necessary for the board to forfeit any portion of the required deposit of $25 on each school because of damage or any infraction of the rules of the board. * * * No smoking or other tobacco indulgences were permitted, and no indications of disorder were apparent after the audience had left the premises on all occasions.

The significance of this report is further increased by the fact that four-fifths of the meetings were held under partisan auspices. At the others all of the candidates were invited to be present at one time, and the meeting was held under the auspices of the local civic association.

The superintendent of Holyoke, Mass., writes as follows:

> The use of a school hall for a political rally is on the whole a good thing. We have been able to remove many of the objectionable features of political rallies by instructing the janitors as to the way in which they must force the attendants at those rallies to conduct themselves.

In certain cities the privileges of schoolrooms are given to political organizations of every type, upon request, but in many other places partisan use is forbidden. The growth of direct legislation has in some places given definiteness to the school board's policy regarding political use. For example, in Winston-Salem, N. C.:

> When the question of commission form of government for the city of Winston was a live question with us, the school buildings throughout the city were used by the

people as assembly places for the discussion of this matter. Recently, when the question of consolidating the city of Winston and the city of Salem into the city of Winston-Salem was a matter of great concern to all of our people, the schoolhouses were used as places of discussion and debating. Our buildings are never used for partisan purposes, but wherever the question concerns all of our people, whether it be political, social, or what not, we not only allow the use of the school buildings, but we encourage their use and insist upon the people coming to the school buildings which belong to them.

Previous to voting upon a municipal referendum in Springfield, Ill., the superintendent of schools himself presided at a number of neighborhood meetings for the discussion of the question at issue. By insisting upon equal time limits for the two parties to the discussion, an unusually ardent campaign was carried through without arousing public criticism.

From Chelsea, Mass., the superintendent writes:

In our city our school halls are used for municipal campaigns. The city charter reads that the city must provide halls for municipal candidates.

LIBERAL LETTING REGULATIONS.

The large number of miscellaneous occasions in school buildings is to be accounted for by the more generous terms under which outside organizations are being allowed the use of school privileges. The cities in which parent-teacher organizations are admitted to school buildings without expense for heat, light, or janitor service have always been numerous; now this privilege is extended to other organizations. In Springfield, Ill., neighborhood clubs and improvement associations are also allowed the free use of schoolrooms. In Cleveland, Ohio, neighborhood clubs may have the use of auditoriums or gymnasiums upon the payment of a small fee to the custodian. During the 1913–14 school year, 298 organizations used 74 Cleveland schoolhouses a total of 1,932 times, at an expense for custodians' fees of $1,729.91. The total attendance upon these meetings was 120,511, a very considerable benefit at a slight expense.

In Rochester, N. Y., nonexclusive organizations of adults, whose object is approved by the board of education, may have the use of public school buildings without charge if there are other activities going on at the same time in the building. A civic club which meets when no other group is present in the building is charged a small fee for heat, light, and janitor service. Upon the application of 50 adult citizens, boys' and girls' clubs may be allowed to meet in school buildings and have also the services of a responsible director. This privilege is withdrawn, however, if the average attendance falls below 25 during any two consecutive months. Whenever the clubs meeting in the school building have an aggregate average attendance of at least 50, a library and reading room and the services of a librarian are provided. If the average weekly attendance at the clubs during

a month aggregates 100, general lectures are introduced or permitted. These general neighborhood meetings are discontinued if the attendance during two consecutive months falls below the prescribed mark.

The board of school commissioners in Baltimore, Md., has a rule that "the assembly room or other suitable rooms of school buildings may be used by responsible civic and improvement associations for the discussion of questions of a public, civic, and educational, but not of a partisan or religious, nature," with no expense except for janitor's services, provided certain minor formalities are observed.

The following instances illustrate the important civic service the board is in this way rendering the community:

Permission has been granted to the South Baltimore Business Men's Association to hold their meetings at School No. 70.

The Business Science Club of Walbrook meets at School No. 63 to discuss civic and social problems.

The Maryland Bureau of Statistics and Information has been granted the use of various buildings, located in different parts of the city, to investigate the status of boys applying for newsboys' badges.

The Home Garden committee has been similarly granted the use of rooms in several buildings throughout the city for their meetings.

The Easterwood Neighborhood Association has its monthly meetings at School No. 62 for the discussion of neighborhood and other civic matters.

The use of desired rooms in School No. 61 has been granted to the Cooperative Club for purposes largely similar to the last-mentioned association.

The Park Approach Protective Association also has the use of rooms in School No. 61, in which they hold their monthly meetings for the discussion of civic and social matters.

The request of the Women's Civic League for the use of Schools 47, 59, and 79 has been granted, giving them the right to hold their district meetings in these schools and to use them as district centers for the purpose of organizing the work of improvement of the school grounds and neighboring surroundings.

The 1914 budget of the New York City Board of Education includes a sum of $5,000 to be used in the payment of janitorial charges incurred in connection with the use of certain specified school buildings by voluntary organizations that are maintaining social center activities.

In accordance with the recent California enactment establishing civic centers in the public schoolhouses, the cities of that State are allowing the use of school accommodations to large numbers of local organizations. In Oakland 18 schools are used by 43 organizations. Their character is indicated by some of their names: Mothers' Club, Exposition Band, Durant Improvement Club, Public Welfare League, St. Aloysius Solidarity of St. Elizabeth's Church, Women's Socialist League, Astronomical Society of the Pacific, the Young Women's Christian Association, and the Junior Literary and Social Club. These are but a few of the instances of enlarged service communities are receiving from school properties.

WIDER USE WITH THE AID OF VOLUNTARY SOCIETIES.

The meetings of the outside organizations that are greatly increasing the miscellaneous afterclass occasions in school buildings are mainly for the benefit of their own members and friends. Many of these bodies also cooperate with the school authorities in the maintenance of regularly occurring activities for the enjoyment of persons not included in their own membership. This form of cooperation shows a steady growth. It is important not only because of the extension in the use of school facilities it accomplishes, but also because it generally leads to the assumption of the wider-use activities by the school authorities themselves, and thus promotes a closer relationship between them and the public.

This cooperation may originate either with the school officials or with the volunteer group. Here are instances of both origins. A supervising principal in New Jersey writes:

> About that time the teachers and myself began to agitate the subject of opening the school and formed a club called the Social Center Club. We then put the matter squarely before the board of education, and as a result we have now many lectures, various entertainments, informal dances—more especially for young people—tea parties, etc.

The following not only illustrates the origination of an activity by an outside group, but suggests a novel solution of one of the problems in domestic service:

> All the schools of the district are open to any proper form of neighborhood activity that develops. The board of education does not initiate very much of the work but is always in a sympathetic mood. As it is now, seven of our nine buildings have something going on one, two, or three nights a week. One new departure has just started, and that is the opening of one of our assembly halls for maids for Sunday afternoon from 4 to 7, where they meet their friends, visit, have their gentlemen friends call upon them, get a cup of tea or coffee, etc., and have a social time. No sports or games are allowed on such an occasion. This was begun last Sunday for the first time, and some 10 maids were there. It seemed to start out propitiously, but what its future may be remains to be discovered.

As illustrative of the various forms which this cooperation takes, a number of examples may be given. The instances where a woman's club has the use of a school building for giving evening instruction to a class of mothers, or where a boys' club is supported and directed by the Daughters of the American Revolution, indicate this type of enterprise in its simplest form. A more comprehensive scheme is found in Elmira, N. Y., where a committee, representing the Federation for Social Service, worked with the board of education in the organization of neighborhood associations at three of the public schools. Under the auspices of these local groups a series of meetings were held at which there were discussions of such subjects as tuberculosis, sex hygiene, bird life, and European travel, interspersed with

musical numbers and recitations, and followed with refreshments and conversation.

In South Bend, Ind., a committee of the chamber of commerce has been instrumental in arranging a series of "civic center meetings" held every two weeks in a number of the public schools. The school board furnished not only heat, light, and janitor service, but also a motion-picture machine. An extensive program of concerts, readings, and lectures are held in the Montclair (N. J.) schools under the combined auspices of the local women's organizations, the board of education, and Unity Church. Plainfield, N. J., offers several suggestive forms of cooperation:

> Three of the school yards, with the adjoining buildings, are used for playground purposes under the control of the city playground commission, with the cordial cooperation of the board of education. Various buildings are used for social center purposes under the general direction of a citizens' committee on evening recreation. This committee was organized at the suggestion of the board of education and has in its membership the president of the board and the superintendent of schools. It employs a supervisor under a salary, who devotes her whole time to conducting and promoting the work. The board of education furnishes the buildings with heat, light, and janitor service and pays a portion of the salary of the supervisor. The work includes evening meetings of various kinds, for dancing, club purposes, instruction, municipal orchestra, etc. * * * Library centers in several of the school buildings are open on various evenings to give the library benefits to the people of the neighborhood.

The town improvement association of Bloomfield, N. J., maintains classes in sewing, folk dancing, and athletic games one night a week in two grammar schools. The Washington Irving High School, in New York City, is the headquarters for the Gramercy Neighborhood Association. This body conducts weekly dances on the roof or in the gymnasium of the high school, arranges orchestral concerts, programs of motion pictures, and cooperates in securing loan art exhibits for the foyer of the building. It has been allotted office space in the high school and is doing much to improve social conditions in that part of the city.

In Jersey City a volunteer extension committee of 20 or 30 members cooperates with the board of education in the maintenance and direction of public dances and club work for young women and men. Embroidery, folk dancing, and choral work are included in their activities. In the same city a public forum is held in one of the large high schools on Sunday afternoons by the People's Institute. At these meetings topics of a civic, social, or ethical character are presented by well-known speakers. While the instances just recorded happen to be drawn from eastern localities, they nevertheless illustrate forms of cooperation that are to be found in all parts of the country.

SOCIAL AND RECREATION CENTERS.

The recent tendency to use public school buildings during the evenings in organized social and recreational activities can not be measured in accurate quantitative terms. The difficulty is that there is no agreement as to what constitutes a social center. According to current usage "social center" is applied to a wide range of undertakings; similar sets of activities have different names in different places. "Evening center," "school center," "community center," and "civic center" have all been applied to evening enterprises that in some cities go by the name of social or recreation centers. The difficulty is further complicated by the lack of uniformity in record keeping and the absolute lack of information in many school board offices as to the precise number of evening occasions that called for the use of their school edifices.

An attempt was made during the months of February, March, and April, 1914, to obtain uniform records of evening occasions in cities of 5,000 population and over. To all superintendents who offered to cooperate, blank forms were furnished with spaces for a daily record of evening activities. Of the 233 cities that accepted this offer, filled-out cards were returned by 110. In tabulating these cards, those which showed evening occasions other than those of the regular night school as frequently as at least twice a week were assembled in one table. In this way a tentative selection of those cities that might be considered to have social centers was made. Whether or not a school having evening activities open to the public as frequently as twice a week represents the minimum standard for a social center can only be decided by the judgment of time. It seemed, however, the most significant standard that could be adopted for the present.

The table thus prepared shows that 53 cities, having an aggregate of 296 schools, meet the requirements of the standard. According to trustworthy reports there are also 29 other cities that claim to have social centers, but regarding which detailed information is not at hand. Such reports as are available indicate that in these 29 cities there are about 100 schools that are locally known as social centers, and there is strong evidence that they are enjoying a normally rapid growth.

Some of the more significant recent developments in cities where social center work has become a definite part of the school program may be briefly noted.

In New York City experimenting in social center methods has been carried on by volunteer committees in cooperation with the board of education. As a result of these efforts, several expert social workers were added to the regular evening recreation center staff and the scope of their work in several neighborhoods was extended. Centers that

had been maintained for women and girls only were reorganized so as to admit men and boys. Social dancing and motion-picture entertainments with paid admissions were found to afford an income as well as desirable forms of amusement. Struggling amateur orchestras were put on a flourishing basis through the opportunity to rehearse in the school building, and public forums were instituted where political rallies, meetings of labor unions, and warm discussions of live local questions could freely take place.

Perhaps the most important result obtained at these experimental social centers was the development of local committees with the ability to help to sustain and direct the work. In one or two of the centers the growth of income-producing activities was such as to supply funds for all of the expenses of the extra activities except that of the salary of the paid expert organizer. As a result of these experiments the policy in the evening recreation work tends to favor neighborhood organization as a distinct goal of the school-center activities.

In Philadelphia the social centers which for a number of years were maintained by the Home and School League and allied organizations, with light, heat, and janitor service from the school board, have now been taken over by the recently established municipal board of recreation.

The dramatic clubs that flourished in the Chicago social centers have been stimulated by an arrangement whereby any club successful in staging a play is allowed to present its production at other social centers. Through such exchanges healthy rivalries have been set up and the clubs have had a greater incentive to do good dramatic work.

In Milwaukee, where the social centers are included under the "extension department" of the school board, unusual pains have been taken to adapt school accommodations to recreational uses. Some of the details of this work are set forth in the following statement by the supervisor of recreation:

> Experience has proven that the average school building can, with little difficulty and comparatively little expense, be made to meet the demands of evening recreation center work. By screening windows and lights, the assembly halls are transformed into spacious gymnasiums. Basement rooms are made attractive by painting the cement floors, whitewashing the walls, and brightly illuminating with electricity. Where basement rooms are not available, the regular classrooms are used. The seats are put on runners or wooden strips in groups of four. By this simple device the schoolroom can in a few minutes be cleared of seats and desks.
>
> A door tender is in constant attendance in the main corridor. He is there to act as reception committee rather than to act as police. Every possible attempt is made to secure for this position a man of tact and pleasing personality who can speak the language of the neighborhood.

Settees and easy chairs transform the main corridor into a lobby where neighbors may meet for friendly conversation. The classroom nearest the door is used as wardrobe where wraps may be checked free of charge.

Each full-time center is in charge of a director, who devotes his entire time to the work. The centers open three evenings a week are in charge of the day-school principal of the building. Workers for the different activities are drawn mainly from the public-school teaching corps. Some are secured from the local State normal school and from Marquette University.

A cooperation in the maintenance of social centers and other recreational activities has been effected in Grand Rapids, Mich., between the board of park commissioners and the board of education. The former maintains a superintendent of recreation and the latter furnishes space and facilities for his work.

In Louisville, Ky., the five social centers are entirely supported by the neighborhoods in which they exist. Each center is under the control of a local council, which sends two representatives to a central council consisting of a member of the board of education, the superintendent of schools, the business director of the board, and the director of the social centers. Any neighborhood desiring to use its school building as a social center is obliged to send in a petition and guarantee the support of the center for a definite probationary period.

An interesting feature of the social center activities in Los Angeles, Cal., is the special provision which is made for immigrants who are planning to take out naturalization papers. The director of the work describes as follows one of the methods employed:

The New Citizens' Club meets on Thursday evenings. A few young men, some of whom are newly naturalized citizens and others who expect to be, are vitally interested in the political, social, and economic questions of our day. All take part in the discussions, and many show surprising intelligence. Once a month there is a special meeting, with an address by some prominent citizen, when those who pass the citizenship examination at the superior court are specially invited.

At the close of each semester recognition day services are held. All the new citizens who have received their second papers within the six months are specially invited to a banquet given by prominent citizens as hosts. Later, in the auditorium there is a public meeting. The program consists of addresses by leading citizens and city, county, and State officials; patriotic music and motion-pictures, and the ceremony of extending the right hand of citizenship. The meaning and value of American citizenship is emphasized.

ADULT EDUCATION THROUGH LECTURES.

Besides the annual lyceum and other courses mainly of an entertaining character, there is a growing tendency among school boards to arrange series of public addresses having definite educational aims behind them, such as have for years characterized the New York public-school lecture system. In its simplest form this effort to increase adult education is revealed in a lecture course in the school

buildings under the management of a citizens' committee, or some other voluntary body, working with the sympathetic cooperation of the school board. The public-health movement is prominent in these undertakings, and from many cities come reports of lectures on tuberculosis, care of the teeth, and personal hygiene, which are given under the auspices of local medical associations or State health departments.

The arrangement of public lectures of an educational character is facilitated in several States now through the circulation of lantern slides from the State department of education. In Wisconsin the extension division of the State university not only loans lantern slides, but is providing motion-picture films.

A more advanced type of this sort of endeavor is illustrated by the educational extension courses arranged each year by the school board of Birmingham, Ala. During the 1913–14 season 156 lectures were given, representing 9 courses ranging from 3 to 75 lectures. Some of the topics covered were: Child health and hygiene, municipal recreation, home and school gardening, street railway transportation, and city building. All these lectures were free and were made possible through the generous cooperation of professional and business men of the community.

In Baltimore, Md., the public lecture is utilized as a step toward the development of public schools as neighborhood centers. The arrangement of courses of public evening lectures has been made a duty of the first assistant superintendent of schools. For his assistance the board has appointed local committees in the districts where neighborhood centers are organized. Many of the lectures are devoted to municipal topics, and all are planned to secure popular interest. At the same occasion musical numbers are provided, and whenever possible the lecture is connected with the meeting of some parent-teacher association or other body associated with the school. Printed invitations to these meetings are widely distributed.

EVENING SCHOOLS SOCIALIZED.

The night school shows signs of losing much of its traditional formality. "Our reading rooms and game rooms in the night school are always full"—such notes as this one from Athens, Ga., indicate the character of the new element that is coming more and more into the evening-school program. Many cities now announce gymnasium courses that have all the attractions of organized games. In New York, high-school buildings occupied hy night schools have been opened on Friday evenings for the special benefit of organizations formed out of the student body. These include dramatic societies, literary, and debating clubs, gymnasium clubs, musical societies, and

choral organizations. In several of the evening high schools social dances among the students are a regular feature of the year's work.

Another illustration of the workings of the social motive is shown in the evening schools of Richmond, Va.:

> An attempt has been made to correlate social activities with the work of the regular night schools. An advantage of this plan is in the increased interest on the part of the pupils, and in saving extra heat and light. Instead of the regular night-school work being interrupted, it seems to be facilitated by this social work.
>
> This work consists of physical games, basket ball, folk dancing, athletics, literary and dramatic clubs, reading rooms, study hall, story telling for younger children, etc. Occasional talks by local talent along civic, vocational, and other educational lines are being conducted with satisfactory results. Many of these social activities have been made possible by the support of outside agencies, as social workers and others. A strong effort is being made to have the schools become community centers for all activities that lead to a higher standard of citizenship.

A more elaborate working out of this idea is found in the new evening-school system in Pittsburgh, Pa. According to its printed prospectus:

> Any public-school building will be opened if a sufficient number of citizens of the local district call for its use as a community meeting house. Wherever the people organize for general meetings or activities by clubs or groups, the board will appoint a secretary to serve the local center in the necessary clerical and supervisory work, and to unify the plans and needs of the people's organizations with the spirit and purpose of educational extension. The activities under social center work may include home and school associations, mothers' clubs, civic and social groups, vocal and orchestral music, literary and athletic exercises, debates, contests, and general lectures and entertainments. When a social center shall call for regular class instruction in any department, such classes, with the persons in charge, will come under the evening-school regulations.

The report upon evening schools and extension work for November, 1913, in Pittsburgh, shows that 19 schools were accommodating a total of 34 of these social-center groups. One of the most interesting results of this work is shown in the musical life which it has stimulated. In the second year of the plan there are now 5 choral societies, 4 chorus classes, 1 class in vocal culture with a combined membership of 600, and 3 orchestras with a total membership of 60. For the administration of this work a department has been provided under the head of a "director of special schools and extension work."

LIBRARY EXTENSION THROUGH SCHOOL BRANCHES.

"There is a growing tendency to extend the use of the school library, that the parents as well as the children may receive benefits therefrom." This note from Salt Lake City states a fact that is true also for other parts of the country. Throwing open the school library facilities is having the significant result of enriching the literary resources available for the pupils. How this is coming about in many communities is illustrated by an instance from South Orange,

N. J. At the Maplewood School in that city a circulating library has been developed by the library division of the local home and school association, a librarian has been installed, and the books properly catalogued and made accessible to the public one afternoon and one evening every week. The school pupils have access to this room, and the board of education cooperates by furnishing the room and some of the books.

In some places reading rooms where current periodicals are made accessible to the public are being provided through the aid of individuals and voluntary organizations. The extension of library facilities is coming about through the school board's desire to increase the use of school buildings by the public, and the library board's desire to get more books to the public. Where cooperation between these two boards has been effected, one of the first results is to permit the use of schoolhouses as distributing stations. The outgrowth of this movement is the installation of branch libraries in the schoolhouse, as is illustrated in the case of Grand Rapids, Mich.; Erie, Pa.; and a number of other cities. School children going to and from school make good distributors of circulating books, while the location of the library branch in the schoolhouse makes its facilities more accessible both to the neighborhood and to the school's pupils.

THE HIGH SCHOOL AS AN ART CENTER.

The well-known art gallery in the Richmond (Ind.) High School has now a rival in the Municipal Art Gallery located in the foyer of the new Washington Irving High School, New York City. At the free exhibitions which have already been held in the Irving School the collections have come from private homes, art societies, and the Metropolitan Museum of Art. The gallery is open to the public during school days from 8 a. m. to 9.30 p. m., on Saturday mornings, and on Sundays from 1 to 5 p. m. In the securing of material the principal has the cooperation of the high school's department of art, several art societies, and the Gramercy Neighborhood Association.

EXTENSION OF DAY ACTIVITIES.

A longer day school program, such as obtains in Gary, Ind., represents a tendency that is found in an increasing number of school systems. In many places the gymnasium facilities are thrown open to the boys and girls for periods immediately after the close of school. This is also a favorite hour for band rehearsals, meetings of mothers' clubs, improvement associations, and folk dancing classes. In Grand Rapids, Mich., domestic science classes for parochial pupils are held in several schoolhouses from 4 to 6 p. m. In Louisville, Ky., and Milwaukee, the social centers are open in the afternoon.

In New York City school playground work has been inaugurated at 163 public schools under the direction of the department of physical training. In a number of cities school buildings have been opened Saturday mornings for various activities, such as classes in domestic science and physical and manual training. The laundry installed in the basement of the Lincoln School, Lexington, Ky., is open after school hours throughout the week for the use of the housewives of the neighborhood. At Fort Dodge, Iowa, the shower baths in one of the new buildings are open Saturday afternoons for boys and in the evenings for men, under the supervision of the physical training teacher.

These are only a few of the instances of this kind of school extension.

ADAPTING SCHOOL BUILDINGS FOR COMMUNITY USE.

The superintendents' letters make many references to the installation of electric lights, bathing and gymnasium equipment, movable classroom furniture, and screens for lanterns. More significant still, numerous cities are adding new rooms to old school buildings for the purpose of meeting some new community demand. For example, in Everett, Wash., a school has received an addition which contains quarters for settlement work and a branch of the city library, as well as a ground-floor auditorium. From Stockton, Cal., comes the report of an extension to a high school which contains accommodations for manual training, and a capacious gymnasium. The latter is equipped with elevated seats along the sides for 700 people. On occasion several hundred more can be seated on the main floor by bringing in chairs. The new equipment is provided for student-body dances, bazaars, and various social gatherings.

In respect to new buildings, a typical comment is from Spokane, Wash.: "All our new buildings are equipped with assembly rooms." In Oakland, Cal., club rooms are also provided in new ward buildings. Harrisburg, Pa., reports a 12-classroom building with an auditorium having capacity for 750 people. According to the plans adopted, this auditorium will have movable seats, in order that the room may be used for a variety of purposes. A gymnasium is also planned for the building, which will cost, exclusive of grounds and equipment, about $90,000. The newest style of Jersey City public school has a library and reading room available for use as a branch of the public library by the public during and after school hours.

As might naturally be expected, the new high schools also show many provisions for a larger public use. Wallace, Idaho, is constructing a building which will have a gymnasium with considerable audience space, an auditorium, a swimming pool, and a bowling alley. The new high school in Selma, Ala., has two auditoriums;

the smaller, with a seating capacity of 150, is designed especially for the accommodation of women's clubs and for occasions when a large auditorium is not desirable.

The most striking consideration of community needs in schoolhouse structures is being shown in several new schools which have been given by individual benefactors. Evanston, Ill., reports a "neighborhood house" for smokers, card clubs, and sewing circles, which was donated by a benevolent citizen, who also contributes $1,500 a year for extension work. In Natchez, Miss., the Carpenter Memorial School, a building having capacity for 400 elementary children, has not only an assembly room, gymnasium, and swimming pool, but also generous space for library work. These latter facilities include reading, stack, and reference rooms. Woodworking and domestic science quarters are also provided.

In Waitsburg, Wash., a $40,000 school has been given to the city which has a very complete equipment for vocational and physical education. Its capacious gymnasium is fitted with a collapsible platform and folding chairs so that it can be used for large meetings and school entertainments. The domestic science rooms have equipment for serving a large number of pupils. Bowling alleys and a swimming pool are also provided.

SCHOOL EXTENSION IN RURAL DISTRICTS.

In the brief space available but slight mention can be made of the multitudinous evidences of the growth of activities in country schoolhouses. From many States come reports of farmers' institutes, lyceum and Chautauqua courses, meetings of school improvement leagues, and agricultural extension courses. In Wisconsin, where the agitation for a more sociable country life is very active, the university extension division is sending out lecturers, lantern slides, motion-picture films, and suggestive programs for neighborhood meetings and is arranging community festivals. At its suggestion in one of the townships the school board has arranged for adults free transportation by omnibuses to evening gatherings in the township high school. Several other State departments are also lending lantern slides, sending out handbooks for civic-center activities, and stimulating the formation of local associations for parents and teachers. As a result of the agitation for improved agriculture, tomato clubs, corn, cotton, and hog clubs, are being formed in many sections of the country. All of these center at the district school and increase its importance to the community.

In many districts the new buildings have additional rooms for domestic science and manual training; these rooms are also adapted to social and recreational uses by the community. Along with this larger equipment there is a considerable extension of library facilities.

One of the most important factors in this movement is the township high school. A notable example is the new La Salle-Peru (Ill.) Township high school. The main building contains a large auditorium, which is separate from the regular high school assembly room. The domestic science department is equipped to provide hot lunches in a regular dining room at a trifling cost. A social center building, donated by a local philanthropist, is attached to the main school by a roofed gallery. It contains a large swimming pool, bowling alleys, gymnasium, auditorium, library, reading rooms, and space for billiards and pool. The obvious service which such an equipment can render to country life will undoubtedly be influential in bringing about the incorporation of similar accommodations in other township schools throughout the country.

WIDER USE LEGISLATION.

The following synopses outline the main provisions in recent State enactments touching after-day class activities in public schoolhouses:

California.—Establishes civic centers in every schoolhouse where citizens may engage in recreational activities and discuss all subjects which pertain to the educational, political, economic, artistic, and moral interests of the community. Light, heat, and janitor service to be provided for out of school funds. Such use to be granted free except where an admission fee is charged. Management vested in school board. Approved June 6, 1913.

Indiana.—Upon application of one-half or more of the voters, any schoolhouse capable of wider use shall be opened for the free discussion of public questions and for other civic, social, and recreational activities. Nonexclusive associations of citizens shall have the use of schoolhouses free of charge when not being used for regular school purposes. School boards may provide for other civic, social, and recreational uses. Approved March 15, 1913.

Idaho.—School trustees may authorize the use of any schoolhouse as a community center. Article XXI, section 185.

Iowa.—School boards authorized to use school grounds as recreation grounds. Provides also for levying tax to support same.

Kansas.—District boards authorized to open schoolhouses for the use of religious, political, literary, scientific, mechanical, or agricultural societies or societies for the suppression of crime. Laws of 1913, chapter 284, section 1.

Kentucky.—District trustees authorized to permit use of schoolhouses by any local assembly of educational, religious, agricultural, political, civic, or social bodies, occasions, or gatherings. Passed March 13, 1912.

Massachusetts.—School committees may conduct educational and recreational activities upon school premises and allow the use thereof by individuals and associations for educational, recreational, social, civic, and philanthropic purposes. Passed May 19, 1914.

New Hampshire.—District boards may grant use of schoolhouse for a writing or singing school and for religious and other meetings.

New Jersey.—School boards may permit the use of schoolhouses and grounds for giving instruction; public library purposes; social, civic, and recreational meetings, and for occasions where admission fees are charged; also for polling places, registration of voters, and holding political meetings. Passed in 1913.

New York.—Permits use of school premises for same purposes as New Jersey law. Also authorizes boards of education to organize and maintain athletics, playground and social center activities. Passed in 1913.

Maryland.—School boards, upon application from 25 citizens, may grant the use of buildings for nonpartisan discussions and for civic, social, and recreational activities. Nonexclusive associations of citizens to have free use of buildings. School boards may provide for other civic, social, and recreational activities. Chapter 461, 1914.

Ohio.—Upon application of responsible groups, school premises shall be available for use as social centers and civic discussions. Organizations using buildings are responsible for damages. County commissioners authorized to organize and maintain civic and social center activities. The levy of a tax may be decided by a popular referendum. Passed May 9, 1913.

Oregon.—District boards may permit use of school buildings for any proper purposes giving equal rights to all denominations or political parties, but costs for fuel, etc., to be borne by users. No dancing permitted. L. O. L., section 4052, subdivision 27.

Pennsylvania.—School boards may permit use of school premises for social, recreational, and other purposes and may make arrangements with associations for the temporary use of school property for such purposes. Passed in 1911.

Washington.—School boards may provide for public meetings, recreation and other community purposes, and may acquire and disseminate information of use to the farm, home, and community. Passed in 1913.

West Virginia.—Trustees may allow the use of schoolhouses for religious, political, and literary meetings and Sunday-school purposes. Section 62 of the school law.

Wisconsin.—School directors authorized to establish evening schools, vacation schools, reading rooms, library stations, debating clubs, gymnasiums, public playgrounds, public baths, and similar activities. Popular referendum authorized to compel school directors to act and provide for a special tax levy. Upon application of voters, school board shall allow use of buildings for free discussions and may allow use of buildings for other civic, social, and recreational activities. Nonpartisan, nonsectarian, and nonexclusive associations of citizens shall have use of schoolhouses free of charge. School board may provide for other civic, social, and recreational activities. Users responsible for damage.

An agitation is now in process in Wisconsin for the passage of an amendment to this law authorizing school boards to furnish for all meetings of the above-mentioned nonexclusive organizations secretarial service by a person to be known as civic secretary of the district. The school principal or other suitable person may be employed for this purpose, and remuneration shall be made out of school funds.

CHAPTER XXII.

LIBRARY ACTIVITIES DURING 1913–14.

By GEORGE B. UTLEY,
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CONTENTS.—General survey—National aid—College and university libraries—Library schools—State aid, library commissions, and traveling libraries—Cooperation—Library work in schools—American Library Association—State library associations—Gifts—American Library Institute—Pensions—Work with foreigners—Libraries in commercial houses—Newer forms of service—New buildings—Expansion in large cities—Necrology.

GENERAL SURVEY.

In a general survey restricted to the library activities of a single year the most that can be done is to record briefly those features of the year that stand forth as especially worthy of mention, denoting (1) certain tendencies in library practice, (2) innovations of general interest, (3) noteworthy examples of progress, or (4) important facts in the year's history.

The year has been one of general advance. New libraries have been established in every State; reports from all quarters speak of increased equipment and increased use of libraries; appropriations for public, school, and university libraries have as a rule been larger; new efforts have been made to reach those outside the bounds of library service, particularly in rural sections; more intelligent and systematic attempts have been made to acquaint the general public with what libraries offer and with the educational work they are performing.

Few people have as yet any real conception of the use that can be made of the free library. Therefore it is the task of every able librarian to wage a steady campaign of publicity and enlightenment as to the service his institution can render. According to investigations recently made by the assistant librarian of Los Angeles, not more than one-fifth of the people of the average city use the public library. Of the remaining four-fifths one-fifth have either no time or no desire to read, and another fifth are either illiterate or else too young to read. Two-fifths are prospective readers, and every annual report on library conditions should indicate some increase of the fraction representing actual users. Mr. Bailey, of the Wilmington, Del., library, thinks

that the relatively small number of library patrons is partly because librarians do not know the home conditions of the people, and therefore can not fit the book to the individual or family. He thinks perhaps the final solution for the city as well as the country librarian will be the book wagon, already so successful in country districts. No doubt we are entering the "take-books-to-readers" era.

Dr. Melvil Dewey said recently:

> We have broadened our ideas like circles in the water. This is the genesis of accessibility: (1) Books to be consulted only by a favored few; (2) by any who paid the fee; (3) freely by all, but no book to leave the building. Then came loaning: (1) To the favored few; (2) to those who paid the fee; (3) and then this splendid modern conception of free as air or water to all. Now we are in the third age of branch stations and deliveries by wagons, motors, messenger, express, or mail. The new parcel post greatly stimulated the bibliothecal imagination.[1]

Branches or deposit stations for lending books for home use have been established not only in buildings erected or rented for the purpose, but also in schools, manufacturing plants, park field houses and playgrounds, department stores, fire and police stations, suburban drug and grocery stores, Young Men's Christian Association and Young Women's Christian Association buildings, institutional churches, and elsewhere. Cleveland, Ohio, for example, has 547 agencies for placing books at the disposal of its citizens; Seattle, Wash., 496; and Portland, Oreg., 908 (distributed throughout the county). Extension of library privileges on the part of cities to neighboring communities has been a frequent topic at State library association and library club meetings.

There has been a steady growth of the county library plan. Twenty-six California counties have county libraries. Their popularity is growing in Illinois, Indiana, Ohio, Iowa, Oregon, Wisconsin, Washington, and Montana. Cincinnati and Portland (Oreg.) serve their respective counties with such signal success that other important cities are planning to imitate them. The American Library Association is planning to issue soon a handbook on the subject that will give useful advice to communities and library boards.

Appropriations for libraries have been on the whole more liberal this past year than ever before, and the limit of the tax rate, where there is a limit, is becoming less restrictive. The obligation of the community to furnish and sustain the free library as it maintains the free school is more fully recognized than ever,[2] and as an indication of the welcome accorded the library and the privileges it offers, it is interesting to learn that a petition for a branch library in a certain portion of Chicago was signed by more than 10,000 residents of the neighborhood.

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[1] Public Libraries, 19: 154.

[2] Eastman, W. R.; in Library Journal, 38: 623.

NATIONAL AID.

The importance and magnitude of the service rendered to the libraries of the country peculiarly impressed those who attended the conference of the American Library Association in Washington, D. C., in May, 1914.[1] According to a handbook compiled for that occasion, there are 137 libraries in the District of Columbia, having an aggregate of 5,674,000 volumes and pamphlets, about four-fifths of which are in libraries supported directly by the Government, and the service represented in this vast collection of books is more or less directly at the disposal of the country at large.

The most important of these agencies is naturally the Library of Congress. The appropriation act for 1914–15 provided means for the extension of its activities by the establishment of a legislative reference department; $25,000 was appropriated to "enable the Librarian of Congress to employ competent persons to prepare such indexes, digests, and compilations of law as may be required for Congress and other official use pursuant to the act approved June 30, 1906." This legislation is regarded as the initial step toward a larger undertaking to embrace service usually contemplated in a legislative reference bureau. The first undertaking under this act is the resumption of the indexing of the Statutes at Large. This will comprise a supplement to the general laws enacted since 1907, at which point the present index stops; also a separate index to the private and local acts from the beginning. Since its present administration began, the Library of Congress has continuously rendered to Congress a service similar to that of a legislative reference bureau. It has not, however, been equipped hitherto, except in occasional instances, to meet requests from Congress for digests, translations, or comprehensive statements. For bill drafting it has had absolutely no provision.

The accessions to the Library of Congress during the year were: Books, 125,054; maps and charts, 6,489; music (volumes and pieces), 32,675; prints (pieces), 16,318.

The most important accession of the year was Mr. Jacob H. Schiff's second notable gift, consisting of more than 4,200 volumes to reenforce the collection of Semitica given by him to the library in 1912. It includes about 120 manuscripts, chiefly biblical, cabalistic, and liturgical.

Through the services of Dr. Fung, in China, the collection of Chinese literature received an increase of 6,467 volumes, embracing works dealing chiefly with lexicography, history, and physiography, the arts, agriculture, medicine, bibliography, and epigraphy; but including also many collected works, series, and encyclopedias.

[1] See section on American Library Association in this chapter.

The manuscripts have been enriched by several private collections. Special interest attaches to the papers of the Mercy-Argenteau family, one of the oldest and most distinguished families of Belgium, the historical record of whose activities goes back to the tenth century.

The publications for the year embrace bibliographical lists on Federal control, water rights, boycotts, and eight-hour working day.

The music division has brought out a catalogue of opera librettos and a monograph on "The Star-Spangled Banner."

The admission of books to the parcel post, beginning with March 16, 1914, is having an important bearing on library development, particularly on the work of State library commissions, which can now reach cheaply and quickly localities remote from freight or express stations.

The Underwood tariff, which made important changes in the duties on books and their material, did not affect libraries, as the clause permitting incorporated institutions to import books free of duty remains unchanged.

COLLEGE AND UNIVERSITY LIBRARIES.

It has been asserted in the past that college and university libraries have not kept pace with public libraries. Recently, however, the situation has shown signs of improvement. At many universities the library building has been made the architectural center of the campus and this is having an intellectual influence. The dignity and importance of the university library have recently been emphasized in a number of public addresses. At the meeting of the Association of American Universities, at Urbana, Ill., November, 1913,[1] Dr. W. Dawson Johnston, speaking on "The Library as a University Factor," declared that a library is not so much a collection of books as a form of service. At the same meeting the position of advanced scholarship was voiced by Dean Ford, of the University of Minnesota, who said that without access to library facilities no university is a university; that it ought to be a commonplace of graduate school policy that the library be recognized as the one all-important institution making possible or impossible, by its strength or weakness, real university work by students and instructors.[2] A municipal reference bureau has been organized by the general extension division of the University of Minnesota, which will act as a clearing house for information and ideas concerning municipal problems. Its information will be at the disposal of all cities of the State. A similar bureau was recently established in the University of California. The sum of $65,000 was given to the University of California for a classroom and library building at the university farm and agricultural school at Davis.

[1] Library Jour., 39: 10.

[2] Educ. Rev., May, 1914.

At Yale University a record of the amount spent for books, according to subject, is kept for guidance in determining the policy of future purchases. A library manual was prepared containing a description of all operations in the library. During the year the library borrowed 111 items from 15 libraries and loaned 239 to 44 libraries. The need of additional buildings for the central library is keenly felt.[1]

In Princeton University greater use than ever before was made of student help. The experiment was made as the result of representations by the library that (1) for the student who is working his way through college the opportunity to earn money in the library is often more appreciated by the student than free scholarship; and (2) that the library can use for library work, or for the preparation of aids to research, or by organizing actual research, any amount of student help that can be provided.

Student use of the library in the University of California is increasing so rapidly that the reading room seating 700 in the Doe Library, completed only four years ago, is already taxed to its limit and plans are on foot for an early enlargement. There were added 22,325 volumes to the library during the year, making a total of about 282,000 volumes now in the library. The staff numbers about 40, exclusive of student assistants, and the appropriation for the past year was $80,500.

LIBRARY INSTRUCTION IN COLLEGES, UNIVERSITIES, AND NORMAL SCHOOLS.

The Bureau of Education during the year issued a bulletin containing the results of an informal inquiry into library instruction in colleges, universities, and normal schools.[2] From this bulletin it appears that 91 universities and colleges reported courses more or less adequate and complete in the book arts. Of the normal schools, 93 reported instruction in library methods, emphasis being laid on the organization and administration of school libraries and the study of children's literature. Supplementing the information given in the bulletin the following should be noted:

Colby College, Waterville, Me., Dr. Charles P. Chipman, librarian.—Two courses in bibliography: Course "A," required of all freshmen, consists of individual instruction given by the librarian or his assistant; course "1–2" is three periods, a total of five hours, weekly. The latter course treats of books and their makers; libraries, ancient and modern; cataloguing, classification, and the making of bibliographies. "The aim of this course is not to prepare students for library work, but to give them such a knowledge of library science as will be of practical value in teaching a professional study of business."

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[1] Those who are fearful of the spread of disease through books will be reassured by an interesting investigation made at Yale University this year. During the cleaning of the library a chemical analysis of the dust was made. About 50 per cent was mineral matter thought to be coal ashes and street dust, and the remaining 50 per cent was organic material, paper fiber, wood fiber, and molds. No mouth bacteria were found, and in general the analysis showed the harmlessness of the dust.

[2] 1914, No. 34.

University of Washington, Seattle, Wash., William E. Henry, librarian.—Freshmen in the college of arts and sciences are required to take one hour a week the first semester in instruction in the use of the library and the use of books; one hour a week the second semester in the choice of studies and selecting a vocation. One credit is given for the year's work.

State College of Washington, Pullman, Wash., Albert S. Wilson, librarian.—This institution has a course of nine lectures on the use of the library, which is required of all freshmen and is open to others. The course is made practical by requiring, in connection with each recitation, answers in writing to a set of questions involving the use of various catalogues and bibliographic tools. Students are divided into classes of 30 for this course.

The library courses extend through the junior and senior years and consist of five recitations per week through the four semesters and six laboratory hours per week through the last three semesters. The completion of this curriculum gives the degree of bachelor of arts and a certificate indicating the amount of instruction in library economy.

NORMAL SCHOOLS.

Tempe Normal School, Tempe, Ariz., Ruth M. Wright, librarian.—The object of the course in library instruction is to familiarize students with the use of books and libraries. There is special work for the class on the valuation of a school library. The following topics are considered: Structure and arranged parts of a book; classification and arrangement of the library; use of the card catalogue and periodicals and dictionaries. In the second year periodicals and periodical indexes, together with reference books, are considered, while members of the senior class give attention to buying and selecting books with special reference to children's literature; use of Government documents.

Kent State Normal School, Kent, Ohio, Margaret Dunbar, head of department of library science.—Six weeks' course required of all students entering for the normal certificate. The course is planned to help the student to get the best he can from the library while he resides at the school and to help the prospective teacher to select, organize, care for, and use a school library.

State Normal School, Monmouth, Oreg., Mabel G. West, librarian.—Courses in library methods:

Course I is a course of five lectures required of all entering students, the main idea of which is to make the students at home in the library. The work is given during the first two weeks of each semester and covers the following: Rules and regulations; classification and arrangement of books; use of the card catalogue; magazine indexes; reference books; investigating a subject in the library; work of the Oregon State Library, etc.

Course II is required of all students before they graduate from the Normal. Two periods a week are given to the work, which runs through a semester of 20 weeks. One period each week is devoted to the technical side of the work and one to the study of children's books. Each lecture on the technical part of the work is followed by a practice period.

Winthrop Normal and Industrial College, Rockhill, S. C., Ida J. Dacus, librarian.—Two courses: One in reference work, which takes up the subjects of classification, catalogues, indexes, and standard reference books, and is required of all freshmen; the second course is one in elementary library methods for school-teachers, and is required of every student taking the normal course for graduation.

Whitewater State Normal School, Whitewater, Wis.—Courses are given in library methods and library use, as follows:

Library methods (18 weeks).—First semester, 8.55–9.45. Senior elective. The course in library methods offers instruction in the care and use of school libraries and

includes the study of the make-up of a book and its repair, the principles of book selection, the mechanical preparation of books for the shelves, classification, accessioning, shelf listing, and cataloguing, the township library law and discussion of the books on the township library list, the use of pictures and periodicals in the school, and methods of instructing children in the use of books and the library. Each student prepares a sample catalogue and does other practical work in connection with the class instruction.

Library use.—A series of six lessons given by the librarian in connection with the required English courses, designed to give a knowledge of the use of books and a library. It includes a study of the resources of the normal library, their classification and arrangement, the catalogue, indexes, and other bibliographical aids; an acquaintance with the more useful reference books; and the making of a bibliography.

The State of Michigan has made special efforts to do library work in normal schools and other institutions preparing teachers. Mrs. Mary C. Spencer, State librarian, reports that for eight years the State library and the State board of library commissioners have conducted summer schools in connection with the Marquette and Kalamazoo County normal and the Ferris Institute at Big Rapids. More recently this work has been extended to Bay View. The Northern State Normal School of Michigan was one of the first normal schools in the United States to give a special course in children's literature. This was organized in 1889, in charge of Miss G. P. Hill.[1]

That the importance of library instruction is becoming better realized in institutions other than colleges and normal schools is indicated by the course given at the Crozer Theological Seminary, Chester, Pa. Since 1910 Dr. Frank G. Lewis, the librarian, has given a course of studies in library economy. The following is a list of subjects: Significance of books and library science; purchase and handling of books; book classification and arrangement; cataloguing and catalogues; periodical literature; indexes, and how to use them; bibliography and bibliographies; library buildings and library administration; the library and the community; library extension and traveling libraries; the minister and the local library.

LIBRARY SCHOOLS.[2]

A new library school, especially intended to prepare librarians for California cities and counties, was started at the California State Library in January, 1914. The course of instruction is similar to that of other library schools. No tuition is charged.

The Riverside (Cal.) Public Library conducted a six-week winter library school from January 19 to February 28, 1914. The library school at Drexel Institute, Philadelphia, was discontinued in June, 1914.[3] The library school of Western Reserve University, Cleveland, Ohio, is offering a course this year on "The public library and com-

[1] Information furnished by Miss M. A. Newberry, of the New York Public Library.

[2] For list of schools, see "Library activities during 1912–13," in Educ. Rep., 1913, vol. 1, p. 326.

[3] See p. —.

munity welfare." The library school of the New York Public Library announces a municipal reference course for the year 1914–15. The library schools are tending to give their courses greater elasticity to meet the special requirements of their students, opportunities being given for specialization in cataloguing, administration, children's work, municipal reference work, normal work, or for whatever department of library work the students wish especially to prepare. Instruction in library work and methods for those either holding library positions or under appointment to positions was given by many State library commissions and State universities. Included in these were schools in Indiana, California, Missouri, Minnesota, Utah, Michigan (State library), Wisconsin, New Jersey, Pennsylvania, New York, and at Columbia University, University of Illinois, University of Iowa, University of Michigan, University of Tennessee, Simmons College, and Chautauqua, N. Y. A correspondence course is offered by the University of Chicago. Library institutes, held in a number of States, are given special prominence in New York in the work of the State library and the State library association. The total attendance in 1913, in the number of libraries or communities represented and in the number of persons participating exceeded that of any previous year. There were represented 423 institutions or places compared with 401 the year before. The New York State library school held an institute in July, 1914, for district superintendents of schools.

The University of Wisconsin library school has made an important change in its arrangement with the university regarding the joint-course students. Previously these students took the library school work during their junior and senior years, mingling it with their university work and receiving 20 credits of the 120 required for graduation. Under the new arrangements students must have at least 96 of the 120 credits before beginning library school work. This plan results in better preliminary preparation and more intensive work by the students.

In 1913 the library schools graduated about 300 young men and women, principally women, ready to take up active library duties.

Nearly all the large public libraries of the country conduct training classes to provide for their own needs.

STATE AID, LIBRARY COMMISSIONS, AND TRAVELING LIBRARIES.

The work of the State library commissions shows expansion in all parts of the country; even those commissions whose appropriations were not increased have succeeded in rendering increased services.

New York's report for the past year is noteworthy. The 477 free lending libraries reporting for 1913 possessed a stock of 4,707,472

volumes and loaned 21,530,294 books—a gain over 1912 of over a quarter of a million in stock and a million in circulation. Since 1893 there has been a fivefold growth in free libraries and a ninefold growth in public use of these libraries. In their financial statements the libraries show a total of $3,814,875 available for the year's expense, of which $1,738,420 was provided from local taxation; this is greater by $116,988 than in the preceding year. Of the 52 cities of the State, 46 are now provided with free public libraries. The parcel post is helping the extension department of the State library to place books more easily and economically than ever before at the disposal of every library, school, club, and individual of the State. During the year there were 1,114 traveling libraries sent out; the greatest number in any preceding year was 852. The greater proportion are sent to study clubs and rural schools. Of the 10,541 school districts in the State, there are only 51 maintaining schools that are without libraries.

In Massachusetts the commission supplied books to 68 towns of the State; traveling libraries were sent to 94 towns and villages; collections of pictures were sent to 120 places; the library agent made 157 visits; 9 new libraries were organized. The appropriation for aiding free public libraries in small towns was increased from $4,000 to $10,000.

Pennsylvania has 142 free libraries; 10 years ago it had 67. During the past year 214 visits by commission officials were made, 8 new libraries organized, and several older ones aided in reorganization. The commission and the State Federation of Pennsylvania Women are in close cooperation. Volumes to the number of 17,884 were sent out by the traveling library department to 327 points in the State.

The Illinois library extension commission received a somewhat increased appropriation and has enlarged its work. Twice as many traveling libraries were sent out last year; programs were made for women's clubs; books were purchased for work with rural schools; three library institutes were held; and many visits of inspection were made. The libraries of Illinois have been placed in an embarrassing position by the legal interpretation of the Juul amendment passed at the last assembly. According to the opinion rendered, the amendment does not affect library taxes; no legal remedy can be applied for at least two years to come.

Libraries in Ohio, due to legislative measures, find themselves also much hampered by decreased income.

Indiana reports the establishment of 17 new public libraries, one of which is in a county heretofore possessing no public library. The State library commission arranged for 107 free lectures in 35 public libraries.

In Iowa several new libraries were placed under tax support, and a number of new buildings were dedicated. Rural extension received much attention, and the traveling library work was largely increased in all departments.

Wisconsin has always given prominence to its traveling libraries. This year these were sent to 773 separate communities, an increase of 100 over the previous year and about twice the number of communities actually reached five years ago. Groups of books on agricultural topics have been especially emphasized. The commission has plans under way, based on the new parcel-post rates for books, for providing better reading facilities for rural districts than have ever been possible before. A separate department known as the study club and book selection department has been established.

In Missouri 326 traveling libraries were loaned, 46 more than in the previous year; 40 package libraries on recall of judges, Philippine independence, Panama Canal tolls, and labor arbitration have been formed and put in the field.

The Kentucky library commission supplies traveling libraries to 182 stations in 81 counties, in many of which these traveling libraries were the only available books except the school textbooks. The commission has assisted the State institutions in library organizing and administration. A graded list of 100 books, to constitute a model library for county graded schools, was compiled on request of the State supervisor of rural schools. The work with rural schools has been greatly increased.

Returns to the New Jersey commission show that 250 library centers in the State loaned about 8,000,000 books during the year; 163 visits were made to libraries by commission officers; 8 libraries were organized and 4 reorganized; 8 granges started reference collections; and a number of round tables were held in different parts of the State.

There are in California 26 county free libraries; 2 library district libraries; 3 high-school district libraries; 131 libraries supported by city taxation; 66 law libraries, of which 55 are county law libraries; 58 county teachers' libraries; 334 libraries in educational institutions, of which 6 are universities, 7 are colleges, 7 are normal schools, 248 are public high schools, and 66 are private schools and other institutions; 48 miscellaneous institution libraries and 69 association or society libraries; 42 subscription libraries. In connection with the above libraries there are 928 branches and deposit stations. There are 133 library buildings, of which 115 were gifts, and of these gifts 98 are from Andrew Carnegie.

The North Carolina commission secured from the State board of agriculture an annual appropriation of $600 for the purchase of

books on agriculture and country life, which will be used to help the farmers of the State.

The North Dakota commission cooperated with the State board of control in reorganizing the penitentiary library.

Utah has been especially conspicuous the past two or three years for new library buildings.

The Vermont free public library commission has in use 161 general traveling libraries, 211 school libraries; 104 study club libraries, and 88 picture collections. The use of these collections has doubled in the past two years.

An unusual effort to encourage the establishment of public libraries is seen in Indiana, where a member of the public library commission has offered 20 cash prizes, aggregating $150, for the best essays on "Why my community should establish a public library." The contest is open only to the school pupils of the nine counties that are without libraries.

Efforts for commissions are being made in Oklahoma, Wyoming, and Montana, and Washington has attempted to secure legislation enlarging the functions of its commission.

COOPERATION.

Library commissions and State associations in their meetings this year have dwelt more than ever before on the problem how to make the book a vital force in the life of the rural dweller. The problem is by no means solved when the book is placed in the hands of the farmer, his wife or his child. Efficiency in labor, so as to conserve time to read, must be taught; and education must be of the kind that gives the desire to read. So librarians are learning to join hands with those conducting farmers' institutes; with the county agents of the Department of Agriculture, of whom there are more than a thousand actively at work; with the granges; with the extension departments of the State universities; and with the public schools. There is here a vast field for cooperation that librarians are just beginning to enter.

The Chicago Public Library has adopted the cooperative scheme, in establishing branch libraries in manufacturing and commercial plants, and offering to establish libraries where suitable rooms are set aside and the salaries of the necessary librarian and assistants are paid by the employer. The plan has proved popular, and about 27 libraries are operating on this basis.

At the 1913 conference of the Special Libraries Association, at Kaaterskill, N. Y., a cooperative plan was formulated for collecting and distributing to subscribers information regarding new publications, pamphlets, documents, bibliographies, type-written material, etc., of special interest to legislative and municipal reference libraries.

This service has proved successful enough to warrant readjustment and enlargement, and the H. W. Wilson Co., publishers of bibliographical and library aids, has launched a new weekly periodical, the "Public Affairs Index," in which the service will be broadened and much enlarged and the data cumulated biweekly.

A fund has been raised by certain firms and individuals of Boston to employ an interlibrary research worker who will not, in the prosecution of her work, be content with the resources of any one library, but by correspondence and personal visits to various libraries will endeavor to exhaust the field of information before rendering a report. Boston libraries have undertaken the preparation of a union list of all periodicals useful for research work received in the 54 public and private libraries of the city.

The General Federation of Women's Clubs at its biennial meeting in Chicago, in June, held a conference on library extension. The following topics were among those discussed: How to secure a State library commission; More liberal library legislation; Book selection; The extension of available resources to the isolated and less-favored districts; The kind of literature to be furnished; and The general relation of libraries to clubs. The committee on library extension of the Ohio federation of women's clubs has conducted a survey of library conditions in the prisons and county institutions, and has taken steps to secure, in cooperation with the State library association, a library survey of the State.

The National Education Association has had a library department for nearly 20 years; exceptionally helpful meetings were held at St. Paul in July. The National Council of Teachers of English recently established a library section, which it is believed will be of much benefit to high school and normal school libraries. The Conference for Education in the South also has a library department.

The American Federation of Arts has for a number of years cooperated with libraries by lending paintings, drawings, photographs of sculpture and architecture, lectures and lantern slides. Each lecture has been written by a person who is an authority and is illustrated by about 50 slides. The City Art Museum of St. Louis hangs the best of its recent acquisitions in the St. Louis Public Library at regular intervals. The St. Louis library cooperated actively in the preparation and production of the Pageant and Masque of St. Louis in May, 1914.

An illustration of the proper sort of cooperation between different departments is seen in Virginia where the State auditor has sent to the State library all the ancient records in the possession of his office. An increasing number of articles on libraries and library work are appearing in nonlibrary periodicals.

LIBRARY WORK IN SCHOOLS.

The growing importance of library work in high and normal schools is one of the noticeable features of the year. The American Library Association, the library department of the National Education Association, and the National Council of Teachers of English have all made this phase of work prominent during the past year, and much has been accomplished through cooperation between these and other associations.

Vocational guidance is being seriously undertaken by nearly all the prominent public and school libraries. Cooperation with the schools in this work is generally intimate and systematic. In Portland, Oreg., a professor of the University of Oregon meets weekly in a study room at the public library those desiring advice upon vocation or courses of study.

Every country school in Wisconsin has a small library of good books. There are nearly a million and a half volumes in these rural school libraries, costing over half a million dollars. The Wisconsin State department of public instruction has compiled a new township school library list of about 1,450 titles, which will be in force for two years from April 1, 1914.

Library agencies in a number of States are recommending the schools to set aside a "Library day"—

> on which teachers and children shall be reminded of the part that books and reading have in human life and education and on which day the various interests of the school library shall be set forth and emphasized.

All the public libraries of the country are each year doing an increasing amount of work with the schools. The school buildings are made library deposit stations and branch libraries, the scholars come regularly to the library on assigned work, and particular attention is given to the needs of teachers. In Portland, Oreg., for example, 300,000 books, or nearly one-third of the total circulation for home use, were borrowed from the school deposits. Instruction in the use of the library and talks on books were given to 31,435 pupils in 968 classes, partly in the school, partly in the library. Most large libraries have a teachers' room equipped with all sorts of pedagogical helps; in some libraries these helps include a set of Montessori apparatus. Librarians are cooperating actively with parent-teacher associations. Many libraries have printed lists of books particularly applicable to school work or to children of school age. Two of the most important of these recent lists are those of the Boston and Washington (D. C.) public libraries. In the latter city the circulation of juvenile books has increased fivefold in the last 10 years, chiefly due to the deposits made in the school buildings. Representatives of library commissions in many States visit the

rural schools, study their needs, place traveling libraries suitable thereto, and give informal talks to the teachers.

The Rochester (N. Y.) Public Library investigated what 1,500 school children did between Friday and the following Monday, and found that reading claimed more of their time than any other recreation. The Rochester Board of Education has cooperated with the public library by turning over to the latter its collection of about 16,000 grade library books. These are managed by the library for the schools, the school board retaining the title to the books, buying new ones, and keeping the old ones in repair. Instead of changing the collection occasionally, as is done in most places, each grade has a permanent collection of 70 volumes.

The Council of the American Library Association, at its meeting in Washington, D. C., in May, 1914, passed resolutions on library service in schools and on the qualifications of school librarians.[1]

AMERICAN LIBRARY ASSOCIATION.

The 1914 conference of the American Library Association was held in Washington, D. C., May 24–29. The attendance was 1,366, the largest in the history of the association. Delegates were present from 37 States, the District of Columbia, and Canada. For the first time in several years there were no representatives from abroad.

The principal consideration at the various sessions was the service performed by the National Government through its many departments to the library interests of the country, and the value of the conference largely lay in promoting the coordination of Federal, State, and other agencies.

The conference was held under the presidency of Edwin H. Anderson, director of the New York Public Library. In his presidential address, "The tax on ideas," he emphasized that the United States is one of the few enlightened countries to place a tariff on books. J. Franklin Jameson spoke on "The need of a national archive building," and said that the United States is one of the few civilized nations which does not possess adequate housing for its archive material. Commissioner Claxton, of the Bureau of Education, advocated greater extension of library facilities among the rural population, outlining a plan for supplying every county in the land with a free public library. John Foster Carr, director of the Immigrant Education Society, of New York, presented the needs of the foreign born and the influence of good reading in making good citizens. Katharine H. Wootten, librarian of Atlanta, Ga., presented a paper on library development in the South since 1907—the year when the association last met in that section—and said that approximately 91

[1] Bulletin Amer. Lib. Assoc., 8: 186.

libraries had been built in 14 Southern States at an expenditure of more than $1,500,000 since 1907. Mr. Carlton, of the Newberry Library, Chicago, warned librarians that the modern demands of administration and business in their library work were robbing them of the old-time prestige possessed by the librarian who actually knew his books. He feared that "at present, intellect is dragged like a captive behind the chariot of utility." Mr. Bolton, of the Boston Athenæum, spoke on "The present trend." He said the movement of the time was toward beautiful and useful branch libraries; that the immigrant population now utilizing the libraries occasioned a movement toward laying quite as much stress upon having standard books in new dress as upon having new books in the stacks; that plans to "push books" would result in putting the best books in the hands of those who might not otherwise read them. The temper of the time toward the moving-picture and whatever is easy-going must be met by the librarian by plans for high endeavor.

The secretary's report reviewed the work at headquarters office in Chicago. The membership was nearly 3,000; increased efforts for publicity had been made; addresses had been made at various State meetings and before library schools. The endowment funds of the association amount to about $108,000. The sale of publications issued by the association amounted to $11,560.79.

Reports were presented by various committees: Administration, binding, work with the blind, cooperation with the National Education Association, coordination, public documents, library training, etc.

The various sections conducted meetings at which different phases of Government service were prominent.

The four affiliated organizations, the National Association of State Libraries, the American Association of Law Libraries, the League of Library Commissions, and the Special Libraries Association, held sessions also in Washington in conjunction with the meetings of the larger association.

The officers elected for the coming year were: President, Hiller C. Wellman, librarian of the Springfield (Mass.) City Library; first vice president, W. N. C. Carlton, librarian of the Newberry Library, Chicago; second vice president, Mary L. Titcomb, librarian of the Washington County Free Library, of Hagerstown, Md.

The council expressed the appreciation of the association to the Postmaster General for the inclusion of books in the parcel post, with the hope that further facilities may be afforded as rapidly as experience and revenue justify, especially by the inclusion of all printed matter within the parcel post; by an arrangement for the collection of book parcels; by adoption of a fractional scale for quarter pounds above the initial pound; and by the ultimate establishment of a rate not exceeding the old book rate of 8 cents a pound

for the farther zones. The council also passed resolutions cordially approving the efforts which have been made toward the erection of a national archive building.

STATE LIBRARY ASSOCIATIONS.

Thirty-nine States and the District of Columbia have some form of voluntary organization to which the principal libraries belong. These associations generally hold meetings yearly, sometimes more frequently, at which prearranged programs are carried out. A library association was formed in Wyoming in October, 1914, and the first meeting was held in Laramie. Plans for a State library commission are being prosecuted. Several State teachers' associations have departments of libraries, among the number being Indiana, Maine, Michigan, and New York.

The constitution of the American Library Association was revised in 1913 to permit any State library association to affiliate with the national body, and the following States have thus far availed themselves of this opportunity: California, Colorado, District of Columbia, Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, New York, North Dakota, Ohio, Oklahoma, Pacific Northwest (includes Oregon, Washington, Idaho, and British Columbia), South Dakota, Tennessee.

GIFTS.

For the year 1913 the American Library Association reported[1] gifts to United States and Canadian libraries aggregating $4,428,241.68. Of this amount, $2,371,642 was received from the Carnegie Corporation. In addition to money gifts, there were recorded 168,655 volumes, 12 sites for library buildings, 10 buildings presented for library purposes, and a number of miscellaneous items.

AMERICAN LIBRARY INSTITUTE.

The meeting of the American Library Institute for the year 1913–14 was held in New York City, December 1, 1913, with an attendance of over 100. It was full of interest and showed serious consideration of the problems discussed.

Dr. W. Dawson Johnston, librarian of Columbia University, read a paper on "Recruiting college men and women for library work." "Physical efficiency" was discussed by Dr. George J. Fisher, of New York City. "Book storage as affected by thickness of paper," was presented by Dr. Harry L. Koopman, librarian of Brown University, Providence, R. I. Melvil Dewey gave an address on "The library's opportunity." There was live discussion of all these papers.

[1] Bulletin Amer. Lib. Assoc., March, 1914, pp. 37–48.

Dr. Paul Otlet, of the Institute of International Bibliography of Brussels, described a "roll book," by which copies of certain parts of books could be thrown on a screen for use in schools, extension lectures, etc.

Mr. Charles H. Gould, of McGill University, Montreal, presented the question of the standard of valuation for books that have been in the library for a long time, particularly periodicals that have become scarce in the market. The consensus of opinion in the meeting was that no standard of value could be set.

PENSIONS.

The city council of Omaha has approved an ordinance establishing a pension system for city library employees, who may be assessed not to exceed 1½ per cent of their salary, to which the city is to add a sum at least 1½ times this amount. The fund may also be increased by private donations or bequests. Any employee who has been at work 35 years, 20 years of which have been in the Omaha Public Library, may be pensioned at the rate of $420 a year. Any person who has served 40 years, 20 of which have been in Omaha, shall be retired on a pension.

A library pension law was recently before the Ohio Legislature, but did not pass, owing to the crowded condition of the calendar. The Brooklyn Public Library and the Boston Athenæum are considering pension schemes. Pratt Institute Free Library, Buffalo Public Library, and Chicago Public Library already have pension systems. The Chicago plan was described by the librarian at the trustees' section meeting of the American Library Association at Washington, in May, 1914.[1] The Boston Public Library is proposing to establish a pension fund on the receipts from fines for overdue books, which amount to about $6,000 a year.

WORK WITH FOREIGNERS.

From 60 to 75 per cent of those who patronize our large city libraries are either foreign born or the children of foreign-born parents. Traveling libraries in nearly every European language are sent out by the leading library commissions, and foreign book lists have been compiled in most of these tongues. The Boston Public Library gave a series of free illustrated lectures in Italian.

The work done for foreigners in our large city libraries is illustrated by the Cleveland (Ohio) Public Library, which has collections of books in Bohemian, Croatian, Danish and Norwegian, Finnish, French, German, Hebrew and Yiddish, Hungarian, Italian, Lithuanian, Polish, Roumanian, Russian, Slovak, Slovenian, Spanish, and

[1] Bulletin of the Amer. Lib. Assoc., 8: 250–252.

Swedish. The first Chinese library to be established in the United States has headquarters in Chicago. Many Chinese students are availing themselves of it. Buffalo has the largest Polish library in the country, containing about 15,000 volumes.

In Massachusetts the work has been extended under the guidance of the new educational director of work with foreigners. Miss Campbell, the director, visited 25 libraries and spoke at six meetings in the furtherance of this work. Lists of books in 12 foreign languages were compiled.

Buffalo, Springfield (Mass.), and other libraries report that this past year special attention has been given to this department of library work. Nearly all important public libraries have compiled reading lists of books in foreign languages, and are from time to time adding to their collection.

LIBRARIES IN COMMERCIAL HOUSES.

Business libraries in commercial houses have been growing in number and in activity during the past few years, until there are now hundreds of corporations, firms, and business men who maintain research and business libraries as regular departments of their plant. The following are a few of the fields covered by these "special libraries": Accounting, architecture, chemistry, civics, commerce, electricity, engineering, finance, gas, insurance, law, philanthropy, public service, railways, sanitation, social service, taxation, telephone, etc. A magazine, Special Libraries, is published in Indianapolis in the interests of these libraries and the work they are doing.[1]

NEWER FORMS OF SERVICE.

Public and university libraries and library commissions, in increasing numbers, are lending both lantern slides and lanterns. The extension division of the University of Minnesota has organized a free lantern-slide bureau. The extension division of the University of Wisconsin is taking steps to promote a library of educational films to lend to schools and social centers throughout the State. The new library building in Los Angeles, Cal., contains a sound-proof music room, equipped with pianos, so that music may be tried by those who wish to hear it before purchasing. Many libraries loan music rolls, graphophone records, material for reflectoscopes, etc.

The public libraries of St. Paul, Minn., and Wilmington, Del., have arranged with the Western Union Telegraph Co. for home delivery of books, the charge of 5 cents a volume being borne by the borrower. Some libraries, St. Louis for example, have arranged for

[1] See report on 50 representative special libraries, by R. H. Johnston, in Lib. Journ., 39: 280–84, April, 1914.

local delivery of books by parcel post, the borrower paying the postage by a deposit made in advance.

Allowing the public to charge and discharge their own books has been successfully tried in some of the small stations of the St. Louis Public Library.

The publicity committee of the Kansas Library Association has been recently sending out to a select list of Kansas newspapers news letters containing items about the various libraries of the State. These news notes have been used by many of the papers and it is believed they have helped library progress in the State. Seattle, Grand Rapids, Jacksonville (Fla.), and other cities send lists of books on the care and feeding of babies to all mothers whose names appear in the official register of births.

NEW BUILDINGS.

New library buildings have been erected at Bangor, Me.; Charleston, S. C.; Harrisburg, Pa.; Harvard University; Johns Hopkins University; Manchester, N. H.; Muskogee, Okla.; New Rochelle, N. Y.; Portland, Oreg.; Somerville, Mass.; Trinity College; Wichita, Kans.; and other places.

EXPANSION IN LARGE CITIES.[1]

Albany, N. Y. New York State Library.—In restocking the library, after the fire of 1911, $632,000 have been spent for books in the past three years, perhaps the largest sum ever spent by a single library in so short a time solely for books. At the request of the State prison reform commission the libraries in the prisons and reformatories of the State were inspected and a report presented. Among the recommendations were: Appointment of a State supervisor of prison and reformatory libraries, thorough reorganization of the libraries along lines outlined, closer censorship of novels and more careful book selection. The extension of the parcel post to books has appreciably increased opportunities for State-wide service.

Birmingham, Ala.—The public library was reorganized, several outlying libraries taken on as branches, and a director appointed over the entire system. A campaign for a book fund was conducted, and over $21,000 pledged; the income from the city was $12,000 and from other sources $11,340.57; and the circulation of books was 179,434.

Boston, Mass.—Two new branch buildings have been completed, one in the Charlestown district and one in East Boston, costing, respectively, $72,200 and $100,000, including land and fittings. Provision for two minor branches has been made in new municipal buildings, and two others (supplementing 15 already existing) have been established. The story hour for children has been strengthened and extended as an important part of the library work. It is not carried on for the amusement of the children merely, but is educational in its effect and leads to acquaintance with books and to their profitable use. Classes and study clubs, including nearly 1,500 students, have held regular meetings at the central library, and the university extension conferences, with special reserves of books, have included about 1,100 students. About 70 free lectures were given at the central building, with continuous exhibitions of library and art material, at the central building and branches.

[1] Reference is in each instance to the public library of the city unless otherwise stated.

Brooklyn, N. Y.—During 1913, 4,583,897 books were loaned; 301,100 people patronized the library out of a total population of 1,634,351; expenses for books, periodicals, and binding were $126,560. Several new branches have been opened. Following the practice of the New York Public Library the weekly hours of labor were reduced from 42 to 40, and the result has been eminently satisfactory. The library is carrying on an investigation of conditions producing physical efficiency. A branch has been built and opened exclusively for children's use.

Buffalo, N. Y.—The public library's appropriation was increased by $10,000, making a total of $115,000; the circulation was over a million and a half of volumes; a new branch was opened in rented quarters, and special emphasis was laid on work with foreigners.

Chicago. John Crerar Library.—The library now contains 322,049 volumes and some 105,000 pamphlets, besides maps and plates. It receives currently 3,466 periodicals and 11,656 other serial publications. The total use during the year was about 522,000 books and pamphlets, and the recorded attendence was 157,893. The expenses were $173,612.68.

Chicago. Newberry Library.—The fourth publication of the library, issued in 1913, is entitled: "Descriptive account of the collection of Chinese, Tibetan, Mongol, and Japanese books in the Newberry Library. By Berthold Laufer."

Three exhibits of printed or manuscript material have been held: (*a*) English literature and development of English printing; (*b*) Edward E. Ayer manuscripts relating to Indian wars and warfare, 1675–1869; (*c*) Autograph letters of over 100 English and American authors, lent by Mr. Hamlin Garland.

The following classes and grades have been established in the library service: Heads of departments, senior assistants, junior assistants, pages. A club for recreation has been formed among members of the staff, and a tennis court, laid out on ground in rear of the library, is in frequent use by them outside of official hours.

Chicago. Public Library.—During the year 7 new branches have been established, making 32 now maintained. A system of traveling libraries, supplanting the former delivery stations, has been organized for the remoter sections of the city, and 20 of these stations are now in operation, with collections of books varying from 500 to 1,500 in each, and supplemented with a daily parcel-post service for books not included in the local collection but obtainable from the central library. The school deposits have nearly doubled during the year, there being over 600 classroom libraries in constant use. The total number of books loaned for home use from the entire system for the past year was 3,428,638, a gain of 391,603 over the previous year.

Cincinnati, Ohio.—One new branch was opened during the year. A course of 25 lectures was given for teachers, the lectures covering the technical use of the library, library methods, and children's literature. The Cincinnati women's club gave Christmas entertainments at 13 of the branches. More business men used the library than in any previous year. At the annual budget exhibit a room was assigned to the library, where reading lists and cards were distributed to many people not acquainted with the library and its work.

Cleveland, Ohio.—In 1913 the public library's total expenditures were $480,924.92; 2,668,430 volumes were issued for home reading, an average of 4.1 per capita, and 152,762 borrowers' cards were in force. The main library was removed to the fifth and sixth floors of an office building where it will probably remain until the erection of a new central building, for which a $2,000,000 bond issue has been approved by popular vote. The removal was accomplished without interrupting public service, 40,000 volumes being transferred during one night. Two new branch buildings were opened.

Denver, Colo.—An exhibition to call attention to Denver products and manufactures was shown in the library during the summer months. Six new deposits stations were opened, and the home circulation increased nearly 23 per cent.

Detroit, Mich.—Three new Carnegie branch libraries have been opened, making 11 branches now in operation. Mr. Clarence M. Burton has presented to the public library a most valuable private library pertaining largely to the history of Michigan, together with the property in which it is housed. Although difficult to compute, its value commercially is probably a half million dollars. Plans are progressing for the new central library.

Grand Rapids, Mich.—The renewal of books has been abolished, books (except new fiction) now being loaned for four weeks, instead of for two weeks. This has resulted in fewer people being compelled to pay fines and in more satisfactory relations between the library and the public. Employees are paid for Sunday and holiday time, instead of being granted time off on a week day.

Harrisburg, Pa.—New library building was opened January 1, 1914, the gift by will of Mrs. Sarah J. Haldeman-Haly. The building is colonial in architecture and is located near the business center. The entire main floor has been thrown into one large room.

Hartford, Conn.—The new building of the Connecticut State Library was turned over to the State officials on February 10, although it has been in use for the past three years. It cost $1,655,693, leaving a balance unexpended of $10,006.

Los Angeles, Cal.—The main library was removed on June 1 to new quarters having 50 per cent more floor space than in the former location. Art and industrial departments have been organized. A new branch building, erected with funds given by the Carnegie Corporation, was opened February 27. Two other branch buildings are being planned. The total circulation of books was 1,559,359, a gain of 32 per cent over the preceding year.

Louisville, Ky.—The public library opened two new branch buildings (one for the use of colored people), loaned 945,966 volumes for home use, an increase of 169,312 volumes, through 276 centers for the circulation of books, and answered 36,621 questions in the reference departments. The library decided to loan books on all legal holidays except Christmas.

Milwaukee, Wis.—Plans for the construction of a three-story addition to the public library, costing about $50,000, were approved July 8. The proposed addition will mean an increase in the capacity of the library of 200,000 volumes and provide two more public reading rooms.

Morristown, N. J.—The public library, located in a block of business buildings, was destroyed by fire February 23. The library was rich in New Jersey history.

New Haven, Conn.—The Carnegie Corporation has offered $60,000 for the erection of three branch library buildings. Two branches are already in operation.

New York, N. Y.—Five new Carnegie buildings were opened during the year, two of them replacing old branches in antiquated buildings. A municipal reference branch was opened in April in the new municipal building. A manuscripts division was established in September, 1914. In the circulation department, 8,824,289 books were borrowed for home use, an increase of nearly three-quarters of a million over the preceding year, and the largest annual circulation the library has ever had. In the reference department the number of readers and number of volumes consulted were fully 20 per cent greater than in the previous year. Cooperation with local educational, literary, and welfare societies has been strengthened through the growing use of the assembly and club rooms in branch buildings.

Newark, N. J.—The business branch has been moved to a new building especially constructed for the purposes of the library.

Oakland, Cal.—Four branch libraries are to be built from a $140,000 Carnegie donation recently received.

Philadelphia, Pa.—The total circulation for home use during the past year was 2,296,368 volumes. Two new branches were erected and three more are nearing completion. The apprentice class system installed last year has been successful.

Pittsburgh, Pa.—The Carnegie Library has over 400,000 volumes, from which nearly a million and a half loans were made for home use, an increase of 101,691 over the preceding year. The lecture rooms had a wider use than in previous years. Regular series of lectures were planned for some of the branches on economic subjects, such as: Some phases of the labor problem; The rise of society; Philosophy of Henry George; Modern social movements, etc. Prominent speakers donated their services.

Portland, Oreg.—The new central library, costing $485,000, on a site valued at $375,000, was opened September 8, 1913. Two new branches were also opened, and a technical department was organized. The library provides frequent lectures and has rooms for meetings of societies, committees, etc. In the past eight months these lectures have been attended by about 75,000 persons. The tax levy was increased in November from four-tenths to forty-five one-hundredths of 1 mill. During the year 1,158,900 volumes were loaned for home use.

St. Louis, Mo.—The public library circulated during the year 1,535,170 volumes, an increase of 121,353; its registered users number 95,351, an increase of 2,044; the staff numbers 94 men and 148 women; total of 242. The expenses for maintenance amounted to $224,094.57. One thousand letters were sent out to ascertain why card holders fail to reregister. Only 108 replied; 25 had removed from the city, 14 said the location was inconvenient, 10 reported failure to get desired books, 39 pleaded lack of time, etc. None found fault with the attitude of the staff. A number of "Visitors' nights" were held, when the library was thrown open to sightseers, and guides were furnished for their assistance.

San Francisco, Cal.—A chain of branch libraries to aggregate in value $375,000 has been commenced, as well as the main library building, which will, with the land, be valued at $2,000,000, and will occupy a site in the new civic center. There are now 15 deposit stations and 6 branch libraries; 934,000 books were loaned for home use, an increase of 84,000 over last year. There are 44,376 card holders. Much attention has been given to the development of the music section.

Seattle, Wash.—A new branch, costing $35,000, the fifth building given by Mr. Carnegie, was opened New Year's Day. The appropriation was increased from $158,807.43 to $168,185.40; 1,041,002 volumes were loaned from 496 distributing agencies; 55,203 residents are enrolled as borrowers; an intermediate collection of books has been installed in the central building for children in the eighth grade and above; and more was done on library publicity than in any previous year.

Spokane, Wash.—The Carnegie Corporation has given $70,000 for four new branches.

Springfield, Mass.—Special efforts were made to reach the foreign population, resulting in an increase of 27 per cent in the circulation of foreign books. The total number of distributing agencies increased from 334 to 363. A new branch library building was completed and opened. The appropriation was increased from $55,000 to $60,000.

Washington, D. C.—The public library utilized 136 agencies last year for the distribution of books. The home circulation was 713,634 volumes. Much work is done with the schools. A bill is pending in Congress, the passage of which will greatly increase the use of the free public library to the people. This provides that school buildings may be used as social centers, centers of recreation, and for free public-library branches during vacation as well as during the school year.

Worcester, Mass.—Three Carnegie branches were opened in February.

NECROLOGY.

Among those prominent in library circles who have died during the year are the following:

Eliphalet Wickes Blatchford, trustee of both the Newberry and John Crerar Libraries of Chicago from their foundation, January 25, 1914.

John L. Cadwalader, president of the board of trustees of the New York Public Library, March 11, 1914.

Frederick H. Hild, librarian of the Chicago Public Library from 1887 to 1909, August 10, 1914.

Frank Avery Hutchins, former secretary of the Wisconsin free library commission, January 26, 1914.

Josephus Nelson Larned, former chief librarian of the Buffalo Public Library, and president of the American Library Association 1893–94, August 15, 1913.

Richard A. Lavell, assistant librarian of the Minneapolis Public Library, November 28, 1913.

George W. Peckham, former librarian of the Milwaukee Public Library, January 10, 1914.

Katharine Lucinda Sharp, former librarian of the University of Illinois and director of the library school, June 1, 1914.

Reuben Gold Thwaites, superintendent of the Wisconsin Historical Society and its library and president of the American Library Association, 1899–1900, October 22, 1913.

William H. Tillinghast, assistant librarian of Havard College, August 22, 1913.

Philip R. Uhler, former librarian of the Peabody Institute, Baltimore, October 21, 1913.

CHAPTER XXIII.

EDUCATIONAL WORK OF AMERICAN MUSEUMS.

By Paul Marshall Rea,

Secretary of the American Association of Museums; Director of the Charleston (S. C.) Museum.

Contents.—Introduction—Museums essentially educational—An educational experiment—Extension work of art museums—Branch museums—Endowments for educational work—Museum extension in Pennsylvania—Administrative relations with schools—Museum work for the blind—University museums of culture—Children's museums—Special museums—Vocational training—Conclusion.

INTRODUCTION.

The report of the Commissioner of Education for 1913 included a chapter on the educational work of American museums.[1] As this was intended to be the first of a series of annual reviews, the subject was approached from the historical and statistical side. It was shown that those museums that derive their financial support to a large extent from municipal appropriation have been the leaders in developing educational work, although they comprise but 15 per cent of all the museums of the United States. Leadership in this direction is the natural effect of the obligation to serve the general public imposed by receipt of tax funds. So successful and important have these educational activities become that they are now essential functions of the public museum, and are undertaken more and more extensively by privately endowed museums.

Few of the museums supported by colleges or by societies and associations as an incidental feature of their work are participating in this great development. This condition is due in part to lack of funds, and in part to ineffective organization, as was pointed out in this report last year. It is a great misfortune that nearly 75 per cent of all museums in the United States belong to this group, but the phenomenal success and expansion of those museums that are able to develop their educational possibilities leads to the hope that the leaven may in some way spread through the whole lump.

It is the purpose of this and subsequent reports to describe recent developments in the educational work of museums, and to record the extent to which the various methods are employed. The author

[1] Rea, P. M., Educational work of American museums. Rep. of Commis. Educ., 1913, Vol. I, ch. 13, pp. 299–311.

has been aided in the preparation of this chapter by 70 museums, which have supplied information regarding their educational activities, and by Mr. Henry W. Kent, secretary of the Metropolitan Museum of Art in New York, who has kindly given the use of special information obtained from 30 museums of art.

MUSEUMS ESSENTIALLY EDUCATIONAL.

That museums have not been more generally recognized as essentially educational institutions is due to the fact that they have existed in the past too largely for the benefit of limited and favored classes—art museums for artists and wealthy patrons of art; natural-history museums for specialists in narrow systematic fields.

In order to make museums of broad educational value it is necessary not merely to install the exhibits in a manner intelligible to the general public, but to make access easy, and to advertise. It is no more reasonable to expect ideas to find their way unaided to the masses of the people than to expect goods to sell themselves. No museum fulfills its educational function by merely maintaining its exhibition collections, however well they may be installed. It must carry its wares to the people, if it would reach more than a small percentage of them. It is true that traveling exhibits and lectures outside the museum are merely samples of what the museum can do better within the walls of its rich storehouse, and the public should be led to appreciate that "extension work" is but an indication of the welcome, pleasure, and instruction to be found in visiting the museum. It will always be possible, however, to reach more people with extension work than can be brought into the museum as regular visitors. Thus personal contact will replace the former aloofness of the museum, and its influence will become a factor in the lives of thousands to whom it must otherwise remain a stranger, while many will profit even more abundantly by becoming regular visitors.

It is gratifying to find that many museums stress the educational value of their exhibits, but still more gratifying to find that many are making it their business to carry the museum to the people whenever necessary.

AN EDUCATIONAL EXPERIMENT.

One of the most interesting features of the educational work of museums during the past year is a concerted experiment in the use of museum objects in teaching the history of civilization, participated in by the American Museum of Natural History in New York, the Children's Museum in Brooklyn, the Children's Museum in Boston, and the Worcester Art Museum.

This experiment is the result of a series of very interesting efforts to utilize museum material more effectively in education. The move-

ment began in 1900 when a meeting arranged by Miss A. B. Thompson and a few others was held at the rooms of the Twentieth Century Club in Boston to consider ways and means by which teachers might be enabled to study the abundant material in museums and thereby enrich their teaching. At this meeting a petition to the Museum of Fine Arts in Boston was drawn up reciting that archæology and the history of art are in themselves important subjects and are important departments of history; that they elucidate and illustrate text and reinforce the teaching of literature; that college entrance requirements specify that Greek and Roman history are to be taught with "due reference to art;" that medieval and modern history are equally capable of enrichment through due recognition of the works of art their epochs have produced; and that no adequate courses of instruction in these subjects are now open to teachers. In view of these facts, the museum was petitioned (1) to lead the way in outlining a general course of study on these subjects illustrative of the development of European and American civilizations, and (2) to allow teachers to form themselves into classes for the purpose of pursuing courses of study in the museum under teachers selected by the museum.

The petition was favorably received by the Museum of Fine Arts, and from 1901 to 1904 ten courses of from 10 to 15 lectures each were given on Egyptian, Assyrian, Greek, and Roman art; Greek vases; Renaissance sculpture; and Renaissance and pre-Renaissance paintings. The classes of teachers attending these courses were organized by a committee consisting of Miss A. B. Thompson, Miss L. W. Case, Miss E. de C. Heath, and Miss A. D. Slocum.[1]

In 1904 the organization of teachers' classes was transferred from this committee to Simmons College, which cooperated with the museum in this work from 1904 until 1907.[2] In November, 1907, the Museum of Fine Arts took over the entire management of this work, with the assistance of an advisory committee on education appointed by the trustees of the museum.[3]

Miss Anna D. Slocum was a member of the Woman's Education Association of Boston, as well as of the advisory committee on education, and, having conceived plans that she considered too new and too untried to bring before the advisory committee, submitted them to the Woman's Education Association. They were received with approval, and in March, 1911, the association authorized its standing committee on public schools to undertake their development. This committee ultimately placed a subcommittee in charge of the work.

[1] For the work of this committee, see addresses by Miss Anna Boynton Thompson and others in report of the proceedings of a meeting called by the committee of lectures on museum collections, Boston, Mass., April 30, 1904.

[2] See Annual Reports Simmons College, 1904, 1905, and Simmons College Catalogues, 1905, 1906, 1907.

[3] See report of the president in Annual Report, Museum of Fine Arts, Boston, 1907.

The subcommittee reported at the end of the year [1] that at its request a course of eight lectures on textiles had been given in the textile study room of the Museum of Fine Arts for the benefit of teachers from the Girls' High School of Practical Arts, the Trade School for Girls, and instructors from Simmons College. This course was given by Miss Flint, and considered (1) tapestry weaving, (2) rugs, (3) shuttle weaving to the fifteenth century, (4) shuttle weaving from the beginning of the fifteenth century to the introduction of power machinery, (5) point lace, (6) bobbin lace, (7) embroideries, (8) printed materials.

A second course of four lectures in Egyptian, Greek, and Japanese costumes was also successfully conducted, while under the auspices of the subcommittee Mr. Louis Earle Rowe, of the Museum of Fine Arts, lectured at the summer session of the State Normal School at Hyannis on the museum of fine arts as an aid to the school-teacher.

In continuing the plans of Miss Slocum the subcommittee of the Woman's Education Association invited the cooperation of the American Museum of Natural History, the Children's Museum of Brooklyn, and the Children's Museum of Boston in carrying on the concerted experiment which is the immediate subject of this report. Miss Slocum, as a member of the American Association of Museums, arranged for the results of this experiment to be presented in the form of papers at the meeting of the association in May, 1914. Before this experiment was concluded Miss Slocum learned of the lectures being given by the Worcester Art Museum and secured a report on its work for presentation with the other reports at the meeting of the American Association of Museums.

It will be noted that up to this point this movement had been concerned solely with the utilization of material in museums of fine art. Miss Slocum considers that the plan of starting the course in the development of civilization still further back, with illustrations of primitive life, is the especial contribution of Mrs. Agnes L. Vaughan, and that her work as assistant in the department of public education places the American Museum of Natural History in the lead in this movement among museums of science.

It is to be regretted that space forbids a full presentation of the work done during the past year by the several museums which cooperated in the experiment reported upon in full at the 1914 meeting of the American Association of Museums.[2] The essential idea underlying this experiment is the feeling that children in the elementary grades need to appreciate more fully the early beginnings of civilization and their relation to modern conditions. In developing this idea the American Museum of Natural History in New York

[1] Fortieth Annual Report of the Woman's Education Association, Boston, 1912, pp. 12-16.
[2] For the original reports in full, see Proc. Am. Assoc. Mus., VIII, 1914, pp. 33-53.

laid out definite work involving a study of the implements and utensils of primitive peoples, and tracing in a broad way the development of modern civilization from these humble beginnings. An effort was made to bring children to an appreciation of the material life (food, housing, clothing, means of existence), psychic life (games, recreation, fine arts, religion, myths, science), and social life (home life, war and commerce, social organizations, international organization) of primitive peoples.

The Children's Museum of Brooklyn began with the geology of Long Island as showing how the land was prepared for the people, and passed to a consideration of the early peoples, savage and civilized, who occupied the island in the early periods of history, leading up in this way to the Dutch rule, British rule, the Revolution, etc.

The Worcester Art Museum endeavored especially to acquaint the children with buildings of different countries and periods by presenting them as expressions of the life and circumstances of the people, and to arouse interest in the buildings of Worcester by showing the traditions under which they were produced.

Story-telling was one of the chief methods of presentation adopted by all the museums. These papers aroused intense interest among museum workers and will probably lead to more extensive experiments during the coming year.

EXTENSION WORK OF ART MUSEUMS.

Museums of art are growing rapidly in appreciation of the importance of entering more intimately into the life of the people. This is well illustrated by the increased use of docents—members of the staff assigned to act as guides and instructors in the galleries. Docent service was introduced at the Museum of Fine Arts in Boston in 1907, and is now widely used in art museums.

Other methods of giving instruction in art to the general public and to schools are coming into prominence in all the more active art museums and indicate a radical change in the conception of the functions of the museum. These new ideas are expressed in many of the activities of the older art museums, but are especially conspicuous in some of the newer museums, whose organization is naturally more plastic.

The history and present work of the Toledo Museum of Art afford one of the best illustrations of the value of close relations between the museum and the people. Organized only 10 years ago by 120 men who each subscribed $10 annually, the museum made up for what it lacked in collections by the intimate way in which it cultivated the interest of the people. To this policy must be attributed in large measure its flourishing condition at the end of the first decade. It now occupies a beautiful building in the heart of the residential

part of Toledo. The building and grounds represent an expenditure of $400,000, one-half of which was the gift of the president, Mr. Edward Drummond Libbey; the other half was raised by popular subscription in sums ranging from 10 cents to $15,000. All classes of citizens contributed—merchants, bankers, school children, members of women's clubs, artists, students, and the men and women of the factories.

The support which the people have given to this museum seems adequately explained by the summary of its educational work as reported by the director, Mr. George W. Stevens:

Noon hour talks on art and travel in the factories.

Illustrated evening talks in public school buildings for neighborhood parents.

Annual exhibits of the art and manual training work of the pupils of the public schools, to which pupils and their parents are invited free.

Free Saturday classes in drawing for children.

Free Saturday classes in drawing for teachers of the public schools who wish to become more proficient.

Weekly criticism of the prints of amateur photographers for the purpose of teaching them composition. Paintings in the museum used as illustrations.

Weekly art history study clubs conducted in connection with the Federation of Women's Clubs.

Weekly art history study classes made up of society debutantes.

Monthly art history study classes made up of factory girls.

Monthly evening receptions at the museum for working girls and their escorts. Light refreshments sometimes served and a musical program occasionally introduced.

Special nights and talks for colored people.

Daily talks in the galleries on various subjects to groups of school children.

A Toledo Collector's League made up of small boys collecting anything, who meet at the museum four times a month for exchange of specimens, study, and amusement.

Evening life classes during the winter months.

Band and orchestral concerts in the museum and on the museum grounds.

The maintenance of a public information and research bureau giving assistance to school children and club women in the preparation of papers on art, etc.

Sunday afternoon talks to the general public in the galleries on the paintings hanging at the time.

Special evenings and talks for employees of department stores, etc.

Many of our activities are varied and changeable, each day bringing its new suggestions and necessities. We aim to keep the museum beating in unison with the pulse of the community. If we note in the morning paper that a convention is to be held in the city, we invite the delegates to the museum and arrange for their transportation. We cooperate with the chamber of commerce, churches, schools, and manufacturers. During the year 1913–14 there were three special educational activities of more than usual importance, as follows:

First. A City-Beautiful Campaign, instructing all citizens and school children how to beautify their dwellings, vacant lots, etc., by means of simple landscape gardening. Thirty thousand people heard lectures. Fifty thousand booklets were distributed. Two hundred and fifty-five cash prizes were awarded. Two hundred thousand packages of seeds were sold.

Second. A Child Welfare Exhibit attended by 50,000 visitors. Fifteen galleries devoted to exhibits illustrating in many ways the activities of the child and suggesting hundreds of improvements in the conditions surrounding the children of the city.

Third. A movement for the preservation and protection of desirable birds. Illustrated lectures given. Bird houses constructed by the manual training pupils.

Arrangements for a bird-day celebration when thousands of bird houses will be properly located. Plans for feeding birds during the winter, the building of bird shelters, etc.

The scope of this work extends far beyond the general conception of an art museum and approaches closely what the museum of the future may be expected to be—a center of many community activities, closely coordinated with the life of the people and with every organization related in purpose to the field of the museum.

The history of the Toledo Museum is a most conspicuous illustration of the ready response which the people will make to advances from the museums. In few instances have these advances been made so earnestly, but where they have the response has been as ready in proportion to the resources of the community.

Even museum workers are slow in realizing that the policies and methods of all museums should be fundamentally identical, whether the material treated belong to the field of art or history or science. In the smaller communities one institution must include all; in larger communities each subject will have its separate museum, but when each of these museums works in harmony with the others for the common purpose of serving the people, museums will occupy a much larger place in the estimation of the public, and will inevitably receive municipal support in increasing measure.

Dependence upon tax appropriations and private contributions has been the most potent factor in the revivification of museums, and will continue to mold their policy to the benefit of both the public and the museums.

BRANCH MUSEUMS.

The difficulty, danger, and expense of bringing large numbers of children frequently to the museums in cities led to the adoption of such forms of museum extension as traveling exhibits and lectures outside the museum. The problem now pressing for solution is that of providing branch museums or centers of museum extension work.

Miss Anna B. Gallup, curator of the Children's Museum of Brooklyn, referring to the length of time that would be required for the school children of Brooklyn even to walk in procession through the museum, suggested the necessity of taking the material to the children in their local centers.[1] The Commercial Museum, in Philadelphia, has already established the first of eight or ten such centers, some of them 15 miles apart. It was at first proposed that the lectures should be in charge of teachers assigned from the schools, but the museum was unwilling to undertake the work unless it could have the lecturers entirely under its control and keep them under instruction in the museum a part of the time. This was finally conceded. The

[1] Proc. Am. Assoc. Mus. VIII, 1914, p. 54.

museum provides a moving-picture outfit, lantern, slides, and material to illustrate the lectures, and has full control.[1]

The American Museum of Natural History, in New York, announced [2] in June, 1914, that final plans for opening 10 local lecture centers had been submitted to the trustees and to the board of education. The lectures will be delivered by the museum staff of 18 lecturers and will be mainly on geographical, historical, and industrial subjects. A system of lending lantern slides for use in classrooms will be established, and a branch museum in the Washington Irving High School will be a local museum for the lower east side of the city.

These large extensions of the educational services of museums indicate the importance and the progressive spirit of their cooperation with the schools.

ENDOWMENTS FOR EDUCATIONAL WORK.

The Field Museum of Natural History, in Chicago, has established a special educational department for cooperation with the public schools. This action was made possible by an endowment of $250,000 given by Mr. Norman W. Harris in December, 1911. The income from this endowment is to be used to maintain a system of museum extension to the public schools of Chicago.[3]

Since this is apparently the first endowment for general educational work with schools, it is interesting to note the purpose of Mr. Harris, as stated by Mr. S. C. Simms, curator of the N. W. Harris Public School Extension:

> Mr. Harris has a deeper purpose even than the education of the young in natural science. He believes that if a scheme can be devised, and this is suggested as one, whereby the textbooks may be given life, may be vitalized, and the younger minds of society given attractive fields in which to extend their imaginative and reasoning faculties, better citizenship will develop in the community, and more stable civic conditions be promised.
>
> To certain children study is drudgery and school work toil, and they grow up in opposition to established rules and a compliance with them. This attitude of habitual disagreement takes different and often dangerous forms as the child matures, and we have then an enemy of society as an organization. Mr. Harris believes that a mind interested is a mind tranquil, and that the habit of acquiring knowledge is like any other habit. If this habit can be made attractive and pleasing at first, it is more apt to continue.

This new department has already begun actual work in a limited way. Two hundred cases of zoological, geological, and botanical material are in circulation. The bird cases contain male and female, nest with eggs or young or both, and sometimes an economic feature

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[1] See remarks of Dr. W. P. Wilson, Proc. Am. Assoc. Mus., VIII, 1914, p. 57.

[2] Misc. Pub. of Am. Mus. Nat. Hist., No. 5, New York, June 23, 1914, pp. 21–26.

[3] See An. Rep. of Director, Field Museum of Nat. History, 1912 and 1913

in the way of food materials. Popular labels of 250 to 300 words are used. Delivery to the schools is made by automobile.

It is to be hoped that the example of Mr. Harris will be followed by others and thus lead to a new epoch in the educational work of museums.

MUSEUM EXTENSION IN PENNSYLVANIA.

The Commercial Museum, in Philadelphia, occupies in several respects a unique position. It includes museum collections illustrating the products and peoples of the world, amplified by free lectures and educational work in the museum, and by loan lectures and miniature museums distributed throughout the State of Pennsylvania. It conducts a foreign trade bureau for the development of the international commerce of the United States. The correspondents of this bureau throughout the world enable the museum to acquire information and material of unusual value in commerce and industry. The nature and scope of the museum is thus unique. It is also unique in that it receives appropriations from both the city council and the State legislature.

The extent of the educational work of this museum throughout Pennsylvania and the conditions under which it has developed can not be better told than in the words of the director, Dr. W. P. Wilson, whose broad vision and indomitable energy have made the work possible. He says: [1]

> The Commercial Museum began 10 years or more ago to try to reach the children of Philadelphia. It first prepared a collection of about 400 objects and 100 photographs to illustrate basic materials in commerce. These things were packed in a big box in such a way that any teacher could repack them. This box was sent out as an experiment to one of the schools. The intention was to leave it there 10 days and then have the wagon take it on to the next school. We had arranged a series of schools to which it should go, but when we called for the collection the school did not want to let it go, and we very soon found that we could not take these collections away after 10 days without ill feeling. We decided that the plan was not practical and gave it up after a few exhibits had been prepared.
>
> Later we prepared collections which we put into the schools and left there permanently. We were so poor in the beginning that we solicited gifts of manufacturing materials from various firms in order to make these exhibits. Finally, we got an appropriation of $30,000 to put these collections in the schools throughout the State during the next two years. We give them to the schools with all necessary information and instructions. Many of them go into the little country districts, where the schools are not graded at all; in fact, we try to get them into these schools in preference to any others.
>
> The work has gone along in this way until we estimate that we are reaching about 75,000 children in the State each year in one way or another. In addition to these collections, we have another systematic work which consists in sending lectures with lantern slides and lanterns to the different schools.
>
> We went a step further. We procured lanterns that in the first instance were run with kerosene, because they went into little remote schools where the teacher prob-

[1] Proc. Am. Assoc. Mus., VIII, 1914, pp. 55–56.

ably had never seen a lantern. Everyone is used to handling kerosene lamps, and we knew that the teacher would know how to trim a lantern which burned kerosene oil. Later we found that electricity had so developed that there were electric plants in some small towns of only three or four or five hundred people; so we added both incandescent and arc lanterns. To-day we are using for the remote schools acetylene lights, which come with the compressed gas in a little tank that is so simple that a child can handle it. Kerosene has been done away with. At present we are circulating continually 15 lanterns and 30 cases, keeping two or three people busy in taking care of them.

In addition to writing new lectures on all kinds of subjects, we so adjust this matter that some person who is a little ahead of the others in a given township will arrange that one lantern will go into 5 or 8 or sometimes 10 schools, and yet be back to us in 15 days. We are also letting the churches have these lanterns.

ADMINISTRATIVE RELATIONS WITH SCHOOLS.

It is remarkable that the services of museums have been but tardily recognized by school authorities, although the high value of these services is now generally appreciated by leading educators. That better administrative relations in this respect will come soon and rapidly seems assured. The extension centers of the Commercial Museum in Philadelphia, already mentioned, are the result of the investigation of a committee appointed by the district superintendents to examine into the work that the museum has been doing with the schools for 10 years without official recognition. The report of the committee led to a formal request from the superintendent of schools for affiliation.[1]

MUSEUM WORK FOR THE BLIND.

An interesting extension of museum work for the benefit of the blind is being successfully developed at the American Museum of Natural History in New York. This was begun in an experimental way in 1909. In 1910 it was placed on a permanent basis through a bequest from Phebe Anna Thorne, known as the Jonathan Thorne Memorial. The income from this endowment enables the museum to send loan collections to schools for the blind in the vicinity of New York, to give illustrated lectures in the museums to blind children and adults, and to supply transportation for the blind and their guides to and from the museum.

During the past year plans for thorough organization of this work have matured, and it now occupies a prominent place in the annual educational program. A census of all the blind in and near New York City has been prepared with the assistance of the New York Association for the Blind and the New Jersey State Commission. Cards were sent to every blind person for return of information relating to occupation and hours of work, whether the person is able to attend

[1] Proc. Am. Assoc. Mus., VIII, 1914, pp. 56–57.

afternoon or evening lectures, ability to secure a guide, and topics that would be of especial interest. This registration enables the museum to communicate directly with the blind people and to afford them the facilities most useful to them.

The objects lent to the schools for the blind include the regular school collections and ethnographical specimens selected according to the requests of the teachers. Indian or Eskimo clothing, implements, and toys arouse such interest that several of the children have written letters to the museum during the school year to express their pleasure in the collections. The material is selected, outside of its interest value, with regard to form, use, and durability under use, although the care exercised by the teachers is found effective in keeping the exhibits intact. The children are permitted to handle the specimens and thus to gain sense impressions and ideas that would otherwise be impossible to them.

Visits to the museum are also recognized as a part of the work of the schools for the blind and are made during school hours. The significance of these visits is summarized by Mr. George H. Sherwood, curator of public instruction, thus:[1]

> The visit to the museum means more than an hour's instruction, more than a mere viewing of new objects; it means a change of environment, a stimulation of intellectual expression, the appreciation of the socializing forces which go to produce public institutions for the distribution of knowledge and the betterment of life. * * * Probably no audience at the museum ever had greater enjoyment than did the 300 blind who assembled last autumn to hear Rear Admiral Peary tell the story of the discovery of the pole. The pleasure of the guests was increased by the special exhibit of the polar animals and the sledge actually used by Peary in his memorable trip.

UNIVERSITY MUSEUMS OF CULTURE.

In the chapter on the educational work of museums last year, it was pointed out that the museums of schools, colleges, and universities are numerically the largest class in the country, constituting approximately 38 per cent of all museums, but that they receive less financial support and accomplish less work than any others, with the possible exception of the smaller historical museums. The causes of this unfortunate condition of college museums as a class were also discussed, and a few exceptions to the general rule were noted. Under these conditions, the action of the board of trustees of the University of Indiana in authorizing, in 1911, the establishment of a museum of classical archæology and art, and a museum of European culture, is of especial interest.[2]

Mr. Neil C. Brooks, curator of the Museum of European Culture, points out that the museum of culture is a type comparatively new

[1] Misc. Pub. of Am. Mus. Nat. Hist., No. 5, New York, June 23, 1914, p. 14.

[2] See Brooks, Neil C. The Museum of European Culture of the University of Illinois. Proc. Am. Assoc. Mus., VIII, 1914, pp. 120-124.

among university museums, and that the three newest museums at Harvard—the Semitic, the Germanic, and the Social museums—are of this type and have all been established within the last 10 or 11 years. It is the purpose of these museums to illustrate important periods and phases of civilization and of social development, and it is significant that they are established to serve as an educational aid to the departments of history and the social sciences, languages, and literature—just those departments which until recently were thought to need no material equipment except books and perhaps a few maps. Mr. Brooks believes that teachers of the humanities should realize more than they do that museum material is as essential to the study of history or literature or art as a laboratory is to the study of physics or chemistry.

It is to be hoped that these new university museums will successfully perform a large educational function and receive better-sustained support than the many college museums of natural history that have been created by enthusiastic and devoted labor only to be superseded by laboratories and changing ideas. The condition of these museums is the more pitiful because their decline is coincident with the recognition of the educational value of public museums.

CHILDREN'S MUSEUMS.

The Children's Museum of Boston, the establishment of which was noted in this report last year, is proving a worthy companion of the Children's Museum in Brooklyn, which was the pioneer in this field. The development of this museum has been so rapid and its success so marked that the report of the director, Miss Delia I. Griffin, is quoted in full:

> This museum was established in response to the desire of a group of teachers for some adequate assistance in presenting the subject of nature study to their classes. Through the efforts of these teachers, wealthy and philanthropic citizens were interested in the project as well as the large museums of Massachusetts and the Park department of the city.
>
> As a result of the combined efforts of these agencies, the museum was opened to the public August 1, 1913. It is housed in "Pine Bank," a fine brick building situated on the shore of Jamaica Pond, within walking distance of the Zoological Garden and Arnold Arboretum and in the midst of Boston's park system. The department not only allows the use of the building and pays for its maintenance, but cooperates with the museum in many ways, supplying material for botanical exhibits and affording facilities for nature walks and excursions.
>
> All the collections are gifts from other museums, from business firms, and from individuals. They consist of fairly representative exhibits illustrating various departments of natural history, ethnology, and industry. But aside from these there are special exhibits valuable in a children's museum although not, perhaps, of a nature to be acceptable to a large scientific institution, temporary displays of bird pictures, nest boxes, feeding stations, and different kinds of bird food; aquaria and vivaria filled with reptiles and insects in various stages of development; and the flower tables with

their procession of blossoms, both wild and cultivated, in the spring and summer, and their burden of fruits and twigs of trees during the fall and winter.

In the eight school months of last year 300 lectures were given. Some of these assumed the form of walks through the park, with study of birds, shrubs, or trees; others were concerned with description of the exhibits, but the greater number were formal illustrated talks given in the lecture room and attended by classes of school children. It is a pleasure to record that the superintendent and most of the masters give heartiest sanction to the plan of such visits during school hours. The wishes of the teachers are followed in regard to the subjects of these lectures, which are correlated with the course of study in nature, geography, and history.

In addition to the educational work carried on by the members of the staff, the museum has been most fortunate in having the assistance of scientists and lecturers of note. Mr. J. H. Emerton, the well-known authority on spiders, gave a series of a dozen lectures illustrated by his own collection and by drawings. The lectures were so popular that Mr. Emerton is to repeat them this year. A geologist from the University Museum at Harvard took a group of boys on Saturday tramps during the spring, each pupil being provided with hammer, chisel, and "Geological Primer," and these trips are to be continued the coming year.

The stories of child life in Japan, written by Mr. Tomita, of the Museum of Fine Arts, are a notable addition to this educational work and are designed to accompany the Japanese collection, which is one of the most complete features of the history room. These stories have been exceedingly popular with groups of children from settlement houses, who have visited the museum during the summer.

The courtesy of these gentlemen and of several others, all of whom gave their services, enabled the museum to provide for the young people speakers of unusual ability and also to furnish the scientists with eager and stimulating audiences.

The institution is incorporated, the board of trustees containing representatives of the State and city boards of education, the teaching force and park department of Boston, in addition to persons of leisure who have time to devote to the details of developing the museum. Its support is derived from membership dues, and a plan is now under way for securing an endowment fund.

In the final analysis, the value of such an institution must be determined by the attitude of the child public toward it. This one has been adopted by the juvenile population of Boston. The average daily attendance is upwards of 200, that of Saturday afternoons from 500 to 1,000. Dozens of young people plan to inspect it weekly, bringing contributions to it and noticing all new installations, while a few evidently consider that day lost which does not allow them an hour or more "helping" to arrange flower tables, feed the turtles, and act as guides for visitors. It was one of these lads who responded to the question, "How long does it take you to walk over here from your home?" with "Oh, I don't walk, I run all the way!"

It may confidently be expected that the number of children's museums will increase in the near future, and that corresponding success will be attained in many parts of the country.

SPECIAL MUSEUMS.

While the essentially public museums are the most conspicuously successful in educational work, it must not be overlooked that there are a considerable number of museums devoted to special technical subjects, like medicine, usually not open to the public, and having no elaborate organization, but containing much valuable material which is abundantly utilized in technical education and research.

The importance of visual instruction as expressed in museum exhibitions has been recognized in several special educational movements. The central feature of the highly organized antituberculosis campaign was a traveling museum, which was shown first at the American Museum of Natural History and subsequently in many cities throughout the country. A more recent illustration is the special exhibition conducted within the past year by the Museum of Safety in New York. These exhibitions are of a nature intermediate between the permanent museum and the temporary exposition. In their transient feature they resemble the latter, but their definiteness of purpose, discriminating selection of material, and instructiveness of labeling partake more of the nature of the museum.

The educational value of some of these exhibitions has been very great, and has demonstrated the desirability of reorganization into permanent museums. Thus the desirability of permanent civic and social museums has been shown by the many successful exhibits dealing with municipal government, hygiene, industrial problems, civic betterment, etc. Museums of this character were discussed in a comprehensive paper read before the Milwaukee-Chicago convention of the American Association of Museums by Mr. Edward L. Burchard, of the Chicago School of Civics and Philanthropy.[1] The chief function of such museums would be the education of the rising generation.

VOCATIONAL LABORATORIES.

Dr. Hector Alliot, curator of the Southwest Museum, at Los Angeles, reports that he is installing in the new building of the museum free voluntary vocational laboratories for children over 14 years old, and for all others of mature years desirous of studying ethnology, zoology, conchology, entomology, botany, mineralogy, and technology.

This is but another illustration of the broad conception some of the newer museums have of their function. Such experiments will be watched with interest.

CONCLUSION.

The educational function of museums, both within the buildings and in various forms of extension work, is developing with marked enthusiasm by museum workers and is attracting increased interest and cooperation from school officials and the general public. The past year has seen concerted action by a number of museums for the more effective educational use of their material. It has been marked by the organization of the N. W. Harris Public School Extension at the Field Museum of Natural History in Chicago, by a remarkably

[1] Burchard, Edward L. Civic and social museums and exhibits. Proc. Am. Assoc. Mus., VIII, 1914, pp. 131–142.

rapid development of the Children's Museum in Boston, and by the completion of the $400,000 new building of the Toledo Museum of Art as the crowning achievement of a brief 10 years of growth. It has emphasized the value of museums of culture in university instruction, and it has seen museum extension work more thoroughly and effectively organized than ever before. The increasing educational work of art museums is especially interesting.

For a proper appreciation of the present status of American museums in educational work, it must be remembered that the great bulk of this work is accomplished by museums receiving their maintenance chiefly from city governments and from private contributions. In other words, the most significant educational work is accomplished by approximately one-quarter of the museums of the country, while fully half of the museums are in an inactive or moribund state. It is important to determine whether the inevitable development of the educational function of museums will be accomplished by the reorganization and revivification of these inactive museums or whether they must be replaced with new museums. The American Association of Museums has appointed a special commission for museum cooperation for the purpose of investigating this problem, with a view to promoting higher efficiency and closer cooperation among existing museums and assisting in the organization and development of new museums.

Since this report was completed, the Newark Museum Association has published a paper on The Educational Value of Museums, by Louise Connolly, with an introduction by J. C. Dana. This paper is based on personal visits by Miss Connolly to many museums and on a study of the Directory of American Museums, the Proceedings of the American Association of Museums, the Museums Journal, and other literature. It is one of the most illuminating studies of this subject available, and will be of interest alike to museum workers and to school authorities.

CHAPTER XXIV.

SCHOOL SURVEYS.

By Edward Franklin Buchner,
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List of surveys examined: Of year 1910—Boise. Of 1911—Montclair—Baltimore—Boston—East Orange. Of 1912—Montgomery County, Md.—Vermont (secondary)—Syracuse—Greenwich—Wisconsin—Westchester County, N. Y.—The 48 States—Atlanta. Of 1913—Boise (second)—Bridgeport—St. Paul—Waterbury—New York City—Newburgh—Grafton—Upper Peninsula, Mich.—Portland—Minneapolis. Of 1914—Ohio—Vermont—Public School 188B, Manhattan—Butte.

INTRODUCTION.

The present movement in education which is briefly described by the term "survey" has not come upon our activities in a sudden manner. It holds in part historical connection with the more recent tendencies which endeavor to "commission," "rate," and "standardize" various features in educational activity and provisions for educational organization.

The most interesting exhibition of the popular interest in education has been manifested in the city and State commissions which have been created for various purposes. Probably the earliest instance of this type of activity is to be found in the Educational Commission of the City of Chicago, which presented its report in 1897. It was a commission of nine members, appointed by the mayor in such a way as to represent the city council, the board of education, and the outside public. Its primary object was "to utilize all that is good in the present system, to discard all that is defective, and to employ new methods when needed." The work of this commission stood in stately isolation until the middle of the last decade, when, in the city of Cleveland, a study was made by the educational committee (1906) which had been appointed by the board of education to inquire into the government, supervision, and course of study of the Cleveland public schools.

STATE COMMISSIONS.

It is chiefly, however, among the States that the commission movement has been most widely extended. It may be said to have begun in 1905 when the Legislature of Massachusetts organized a commission of nine members for the purpose of investigating "the needs

for education in the different trades of skill and especially in the various industries of the Commonwealth," "how far the needs are met by existing institutions," and to consider "what new forms of educational effort may be advisable." During the next five years the various, particular, and general educational problems were committed to investigations to be conducted by educational commissions in the following States: Arkansas (1910), Colorado (1910), Connecticut (1907), Delaware (1909), Idaho (1909), Illinois (1907), Indiana (1911), Iowa (1907), Kansas, Kentucky (1908), Maine (1909), Maryland (1909), Michigan (1909), Montana, Nebraska (1908), North Dakota (1907), New Jersey (1908), Oregon (1909), Pennsylvania (1907), South Carolina (1910), Texas (1909), Utah (1909), Vermont (1909), Virginia (1908), Washington (1907), West Virginia (1909), Wisconsin (1909). By 1908 the effort to secure the benefits of this method of consideration of pressing educational problems had reached such magnitude that the United States Commissioner of Education in his introduction to the Report of the Commissioner of Education (vol. 1, pp. 3–6) attaches to it ranking importance in his analysis of the achievements of the year.[1]

THE SURVEY MOVEMENT.

Beginning with the Report of the Commissioner of Education for the year ending June 30, 1907, one may find another anticipation of, if not a preparation for, the survey movement as it has developed in more recent years. In this report (vol. 2, ch. 19, pp. 523–541) there appears a special survey of the material in the most recent collections of the bureau which is intended to be an introduction to the statistical papers. In his treatment of this material Prof. Edward L. Thorndike continues—

> to show in some measure what these statistics reveal that is of interest and significance; first, to all intelligent citizens; second, to the half million men and women who are engaged in the work of teaching; and, third, to those teachers, clergymen, statesmen, and other students of education who lead public opinion, and should preserve expert knowledge.

The topics presented in this chapter include: What the statistics reveal; the facts of the educational census of 1907 and the changes within recent years; types and variations in American education; and educational relations. In the next year's report (1908) (vol. 2, pp. 1057–1075), a similar method of surveying the new material collected by the Bureau of Education was continued by Prof. George D. Strayer in "A summary of the statistical papers." This survey presented the following topics: Data given in the statistical papers; some of the facts concerning the general summary of education sta-

[1] See also Reports of the Commissioner of Education: 1908, vol. 1, pp. 42–52; 1909, vol. 1, pp. 42–52; 1910, vol. 1, pp. 41–46; 1911, vol. 1, pp. 228–231.

tistics, with special reference to tendencies which are apparent from a comparison of data available since 1870; and to reports and variations in educational practice for the several States. In the report of 1909 (vol. 2, pp. 1327–1352) Prof. Strayer gave a statistical summary of the year's material and selected the following topics for consideration: Review of the papers in the report; financial statistics of city school systems; retardation and acceleration of pupils in city schools. Again in the report of 1910 (vol. 2, pp. vii–xxvi) his introductory survey considered these topics: Selection of statistics; work of the Bureau of Education for schools and improvement of social conditions in Alaska; statistical summarization; retardation and elimination of pupils; the economic status of high-school students; some data concerning normal school students.

The inauguration of the present movement in educational surveys received, without doubt, great impetus from the various efforts to rate schools, which began with the work of the Carnegie Foundation for the Advancement of Teaching. In so far as any of the associations of colleges and preparatory schools in the different sections of the country controlled the activities of their members, the practice of estimating educational performance, as it focalized at the point of entering college, had doubtless gone far to suggest the desirability of this practice. The policy of rating and standardizing has been discovered to be an excellent means of molding public opinion in its constructive attitude toward education. One of these last manifestations is to be found in the very recent effort to apply "the efficiency score card" in the rating of rural schools as "standard" or "superior," as is being done in Alabama, Illinois, Oregon, West Virginia, and other States.

The school survey movement, however, is the logical outcome of the recent discovery and development of scales and other standards of measurement of the educational progress of individual pupils and an estimation of the comparative positions which these schools and systems of schools occupy in any fields of study. Although many of the surveys that have been made were actuated by more popular interest and gave vent to the tension of local pressure, it is highly probable that the survey movement of the present decade would not have taken form had it not been for the norms, standards, and scales established during the preceding decade by investigations in teaching school subjects to children and in the administration of city and State systems of schools. The measurement problem and the survey problem in education are not identical, but there is a logical as well as historical connection between them. The measurement problem calls for a detailed and experimental analysis of the facts of a given order; the survey problem calls for a sympathetic and critical treatment of facts of a different order. The former takes educational

activity in its elemental connections, and when thoroughly accomplished, succeeds in establishing standards; the latter takes educational activity in terms of its largest relations and endeavors to give significance to all its details as a part of the system. The earlier school surveys stand in marked contrast with later surveys, because the standards and scales were not available for application to the situation discovered in the field of the particular study. A topical study of the scope of the surveys reveals a steady progress in the important matter of utilizing conclusions of scientific investigations in estimating the comparative value of a system of schools.

The complex character of both the individual and social situations in which education is always found is well indicated by the difficulty which was experienced in defining the exact character of an educational survey. Of the score or more school surveys that have been made, it is found that some are primarily financial, others hygienic, others vocational and industrial, and some primarily educational. The most serviceable definition of the characteristics of a genuine educational inquiry will probably have to be left to the cumulative decisions and experiences of many different trials.

This report on educational inquiries and surveys made up to the close of the year covered by this annual report presents a statement of the place and time, the authorization, the details of the staff, the situation leading to the inquiry, its method and scope, the fundamental problems investigated, with a statement of the more important particular discoveries concerning the school or system, and the recommendations. No attempt is made in the present chapter to report on the results of the effectiveness of the surveys.

BOISE, IDAHO.

Upon invitation of the board of education, C. N. Kendall, superintendent of schools of Indianapolis, reported on his inspection of the public schools of Boise, Idaho, during one week in November, 1910. The report appeared in the Idaho Statesman December 18, 1910. The guiding principles of the investigation were—

> that the efficiency or value of a system of schools is determined by five factors: First, the school plant; second, the teacher; third, the course of study; fourth, the organization of the schools; fifth, the attitude of the community.

To these is added "the question as to what the schools are doing for the individual children." The report gives no indication of any statistical or other quantitative study. The surveyor was impressed with the general excellence of the school system. Recommendations were made with regard to: The addition of properly equipped playgrounds; library facilities for the high schools; securing greater continuity in the teaching staff; a need of more provision for adequate

industrial and manual training; attention to physical training; systematic medical inspection; and the addition of special teachers for ungraded classes of retarded pupils. In the separate pamphlet publishing the report, the superintendent of schools announces as a direct result of the survey—

> the addition of seven teachers, a playground director, and a school nurse; the purchase of a 40-acre playground and athletic field; the addition of an ungraded room; and an increase in the salaries of elementary teachers.

These enlargements added 25 per cent to the budget, without any complaint from the taxpayers.

MONTCLAIR, N. J.

A report on the work in the public schools of Montclair, N. J., was made by Prof. P. H. Hanus to the board of education in May, 1911. The condition leading to the survey was a desire to modernize the course of study, which had received no essential modification since 1903. The scope of the inquiry included a personal investigation of all the schools, a comparative study of school grades, and of the age and grade distribution of pupils. The topics of the report are: (1) General survey of the schools; (2) teacher and teaching; (3) the program of the studies (*a*) of the elementary schools, (*b*) of the high schools. Four days seems to have been the time given for the personal inspection of schools and classes.

This inquiry was characterized by a manifest desire to present clearly the educational responsibilities of the board of education by a careful study of the "present conception of the educational opportunities the city should offer" to its children. There is an effort, accordingly, to determine "the nature of the social environment of each school, and hence of the pupils." The report is also characterized by a statement of the difficulties and limitations of the schools, and not by an overemphasis of their special merits. Criticisms and recommendations are therefore scattered throughout the report of 21 pages. This survey is also characterized by the utilization of the method of comparing what was found in the Montclair schools with other selected schools. The tables are as follows: 1. The distribution of scholarship grades in the Montclair high schools; 2. The distribution of time allotment to subjects in the elementary schools compared with Newton and the average of 10 American cities; 3. A study of retardation and elimination based upon the office records; 4. Distribution of ages by grades; 5. Nationality according to grades.

The findings and recommendations emphasize the following points: The hygienic and educational defects of the several school buildings, which seem to be many, are pointed out, including the need of gymnasium, playground, and school garden facilities.

While the program of elementary studies is the conventional program throughout the country, certain difficulties are pointed out. According to the report more time should be given to history and there should be less emphasis on grammar and arithmetic in the lower grades. Omissions of some topics in the subjects in the seventh grade, redistribution of the time allotted to literature and reading, elimination of the drills in reading and spelling after the sixth grade, and a more careful differentiation of the program in the several elementary schools are recommended in order to meet the educational needs of these rather distinct social groups. The last two years of the program of studies should differentiate by offering groups of studies intended, first, for those pupils who go to work in the industries at an early age; second, for those who go to work in business houses after the elementary school is finished; and, third, primarily for prospective high-school pupils. The high-school recommendations include an extension of the scope of the instruction by certain additions in physical science, biology, physical geography, geology, astronomy, agriculture, and manual and domestic arts, foreign languages, and commercial subjects. The program of studies should be so constructed as to make all the instruction accessible to all the pupils by means of outlining suggested schedules of studies which pupils might follow.

BALTIMORE, MD.

As a result of "controversies" which were "a matter of common knowledge," the board of school commissioners of Baltimore, Md., on January 25, 1911, invited Dr. Elmer E. Brown, United States Commissioner of Education, "to organize a commission of three disinterested and competent persons to investigate and report upon the system of instruction now in force in the public schools of Baltimore City." The commission as organized included, in addition to the United States Commissioner of Education, Dr. E. P. Cubberley, of Leland Stanford Junior University, California; Supt. C. N. Kendall, of Indianapolis, Ind.; and Dr. H. Updegraff and Mr. M. B. Hillegas, of the United States Bureau of Education, as assistants. The well-arranged and fully indexed report (112 pp.) was published as Bulletin 1911, No. 4, Whole No. 450, of the United States Bureau of Education.

The time devoted to personal examinations and inquiries in Baltimore was the month of March. The two following months were occupied by the treatment of this material by the historical and comparative methods of study which were employed in the preparation of the report. The aim of the investigation was to study the Baltimore elementary system as a whole, excluding the secondary

system and for the most part the special problems of the colored schools. While attention was paid to the historical development of the system and to a detailed analysis of the administrative functions, the teaching staff, and the courses of study, the most striking feature of the survey was the comparison which it made of the Baltimore findings with other larger cities. The report consists of five chapters. Chapter I details the organization and methods of the inquiry. Chapter II forms a history of the Baltimore system, including its social, legal, and financial features. Chapter III (44 pp.), the body of the report, gives detailed consideration to the following topics: (*a*) System of supervision; (*b*) the teaching force and its training; (*c*) the elementary school curriculum. Chapter IV considers the school plant and the attendance, health, and discipline of pupils. Chapter V brings together the educational views and suggestions. The descriptive material of the report is well supported by 25 tables, 13 figures, and 2 analytical charts.

According to the census of 1910, Baltimore was the seventh of the 13 larger cities in the country having a population of over 350,000, thus occupying a middle point in this list of 13. The population basis of comparison is utilized throughout the study. The total expense of the schools was $3.32 per capita of population (1908), Baltimore thus ranking next to the last of the 13 cities. School expenses were 24 per cent of total city expenses (1908), Baltimore ranking ninth in this respect. For every dollar spent on police Baltimore was spending $1.47 for schools, ranking eleventh. In carrying on the general and special services in all municipal affairs it was found that Baltimore expended $13.29 per capita, ranking eleventh in this particular also. Its per capita cost of total expense of elementary schools, based on enrollment, was $18.71, which ranked it the lowest on the list. The same situation obtained in the per capita cost of salaries in the elementary schools, which was $13.95.

In the study of the training and instruction in the elementary day school, which takes up more than one-third of the report, it was found that one of the most pressing needs of the schools of Baltimore was a very material increase in the supervisory force.

It is recommended that there be an increase in the number of assistant superintendents in the staff of special supervisors, the creation of a staff of primary school supervisors, and that in all elementary schools having 20 or more teachers with all of the grades represented all of the time of the principal should be devoted to supervision.

The preparation of the teaching force was criticised, and it was recommended that there be secured "more academic and broader scholarship, as well as professional attainments on the part of teachers," and that "increased attention be given to securing teachers

who have had training and experience outside of the schools of Baltimore." The serious condition of the schools was traced in large part to the "decidedly low" salaries paid to elementary teachers. In spite of the absence of a definite time allotment for the various subjects in the course of study, it was found that in practice such an allotment is made. This practice receives the unqualified approval of the commission, because it is in agreement with the prevailing practice elsewhere. A detailed study is made of the following subjects: English, mathematics, geography, nature study, drawing, physiology and hygiene, handwork, and industrial subjects. The prevailing practice in the teaching method receives criticism because "not enough use is made of the principle of apperception." The subsidiary topics making up Chapters IV and V are presented, as it were, in passing, and do not enter into a vital part of the inquiry.

The summary of its findings and recommendations is presented in the report (pp. 8–15). It is found that the system shows elements both of strength and weakness, although its conditions have changed for the better since the adoption of the charter of 1898, under which the schools are being improved. Emphasis is placed upon the fact that the administration of a system of schools must be directed "toward the interests of the whole community quite apart from private and factional interests." It is recommended that the expenditures for schools should at least be brought approximately to the level of other cities of the same population. While finding much to criticise, the inquiry resulted "in an opinion favorable" regarding the system. Special endeavor is made to keep entirely clear of the recent controversies which seemed to have checked the forward movement in the improvement of the system. It is recommended that the system of organization of the elementary schools which "provides for supervision by vertical divisions" be supplemented by an increased amount of "horizontal supervision in the case of special subjects." The difficulties of administration due to the charter provisions under which teachers have permanent tenure of their positions receives extended attention. The commission regarded "promotional examinations as a proper and serviceable method looking to the improvement of a body of teachers, many of whom are below a reasonable standard for the present day as regards general and professional education." While the elementary course of study was regarded as moderately conservative, it was found to compare favorably with that of other large cities and is especially commended because of its general policy of cooperation with the teachers in its elaboration. The objections to coeducation were found to be a purely local situation. The unsatisfactory condition of many of the schoolhouses was a final fault which should be remedied.

BOSTON, MASS.

On October 7, 1911, the finance commission of the city of Boston presented its report on the Boston school system which had been made in response to the request of Mayor John F. Fitzgerald. The invitation was—

> to conduct such an inquiry into the methods of the school and schoolhouse departments and the results attained as shall either satisfy the public mind of the need of these increased expenditures or suggest a specific policy of retrenchment.

The request for this investigation was made March 17, 1910. Twenty-seven additional questions were submitted by the mayor to the commission between the date of the request for the school investigation and April 1, 1911, the majority of which related to matters outside the school departments. This accounts for the unexpected delay in the completion of "a task of such magnitude as the investigation of the public schools."

The report presents a study of the historical survey of the development of the present system of schools, both educational and financial. It adopts a comparative method of studying its administration with that in the leading cities in the United States, the school year of 1909 having been used as the period for investigation. The report (229 pp.) is presented in five parts, as follows: (1) Introductory; (2)development and growth of the schools; (3) financial review; (4) comparison with other cities; (5) conclusions and recommendations of the commission. It includes 15 statistical tables, 13 of which exhibit comparison with other cities; and three appendices, consisting of special reports on the Boston Normal School, the Mechanic Arts High School, and on salaries of elementary-school teachers.

The bulk of the report (pp. 10–99) offered a detailed study of the historical development, and especially of the recent growth of the public schools, so as to have full information of the conditions under which the increasing cost was made necessary. The critical investigation of the development from 1898 to 1911 resulted on the whole in a justification of the educational features of the system.

1. No thoroughly satisfactory comparisons of costs can be made between the Boston school system and those of other cities, because of the difference in the methods of school accounting, in the presentation of school data, and in school conditions. So far as such comparisons can be made, however, they are on the whole favorable to Boston.

2. Boston's schools have reached their present condition under the guidance of those wise counselors whose aim has been the development of a well-ordered system of centralized authority in which the school committee should legislate upon matters of general policy, while the details of administration should be cared for by paid officials trained in educational and business affairs.

3. The administration of the school committee, both on the educational and business sides, is entitled to the full confidence of the community. At no time in the history of the schools have they been conducted in a more intelligent or economical

manner than at present. In the matter of getting a dollar's worth of value for every dollar spent the school department contrasts very favorably with most other departments of the city. In fact, other departments might well study this department with a view to imitating it in regard to scales of salary, absence of unnecessary employees, economical methods of purchase, intelligent schemes of supervision and organization, merit system of promotion and exclusion of politics from appointments. The school department is not perfect in these respects, but when the other departments are brought to the same level, or nearly to the same level, the city will have made an enormous step in advance.

4. There is very little opportunity for retrenchment in school expenditures. Although the amount expended annually is large, the purposes for which the money is spent are definitely fixed by statute or by schedule, or by the actual necessities of the situation; for example:

(*a*) Salaries of instructors, janitors, and subordinates are established upon carefully prepared schedules, which can not in justice be reduced. To meet them, there is required each year more than four-fifths of the total appropriations. Salaries of officials are in addition, and an analysis shows that none of these is excessive.

(*b*) Pensions, the cost of physical education, of nurses, and of repairs are the subjects of special statutes, and the amounts authorized are not too large.

(*c*) Fuel, light, and power are necessities, which the finance commission believes are being provided economically.

(*d*) Books are also necessities, in the purchase of which there seems to be no practical way to effect material economies.

(*e*) Trust funds can not be touched, except for their own definite purposes.

(*f*) All that remains is the item of incidentals, which includes supplies of all kinds other than books. This amounts to only about 3 per cent of the total school expenses, and any material reduction would not only be insignificant in amount, but harmful to the school system. The only just criticism that can be made here is that the financial needs of the schools have sometimes compelled a too great economy in this direction.

5. The large expenditures of recent years are due to an attempt to supply the deficiencies of previous years and to meet real needs. In response to popular demands many experiments have been made and are being made which have not yet fully shown their worth. Some of these experiments may fail; but all progress comes through experiment. There is nothing which is being done which is not worth serious consideration and a fair trial.

6. The introduction of advisory committees is excellent, if not carried too far. These advisory committees are not elected by or in any way responsible to the people; they are quite large, and are made up of busy men, whose early interest sometimes wanes, and the real control falls into the hands of a few energetic enthusiasts. The responsibility of final decision in all matters must rest with the school committee, and in weighing the advice given the question of how far the entire advisory committee has taken part in the matter should be considered. The history of the non-elected primary-school committee from 1818 to 1854, and its controversy with the elected school committee which created it, is a warning against the dangers that may arise in this direction.

The commission recommends;

1. That the names attached to the positions of auditor and business agent be transferred one to the other, so that each office shall have a name which properly describes it, and that the present confusion of duties may be avoided.

2. That the publication of two reports, one by the business agent and one by the auditor, be discontinued, and that there be substituted therefor a single report on school finances, which may be prepared by the two officials in cooperation, or may contain reports from each, but which shall contain no duplication of material.

3. That the schools be given jurisdiction over licenses of all minors, of whatever age, who attend school.

4. That the board of superintendents and other highly paid officials be allowed sufficient clerical assistance whenever it is required in the discharge of their duties.

5. That clerical assistants to the principals be appointed in the elementary schools.

6. That books be not allowed in the schools after they have been removed from the authorized lists; nor after they have become unduly worn or unclean.

7. That every care be taken to exclude incompetent teachers from the service; and to that end that a more complete and thorough system of visitation of schools and teachers be introduced, possibly through an enlargement and extension of the department under the supervisor of substitutes.

8. That the policy of reducing the quota of pupils to teachers in the high and elementary schools be continued, and that still further reductions be made.

9. That the existing policy of permitting the use of school buildings for other than school purposes be extended as funds become available.

10. That, if necessary, the legislature be asked to grant a larger appropriation for school purposes. This can readily be done without materially raising the tax rate, if reasonable economies so often recommended by the finance commission be introduced in other municipal departments. Waste due to political methods in other departments should not be allowed to absorb the money needed by the child.

EAST ORANGE, N. J.

On December 12, 1911, Prof. Ernest C. Moore, Yale University, presented to the special committee of the board of education to investigate the educational efficiency of the schools of East Orange, N. J., his report on the study of the schools of that city, which he made during 10 weeks' time. The examination was to be made "in any manner he deemed best," and his report was to be prepared "without consultation with the committee." The object of the inquiry was to pronounce upon "the educational efficiency" of the East Orange schools. The method adopted was that of personal visitation in the schools, conferences with members of the staff, and comparative studies with schools in other cities. The inquiry recognized that there is "no single test by which a system of schools may be judged." A few of the conditions which produce efficiency were studied and led to the detailed consideration of the following topics: I. The historical sketch of the school system; II. The community and efficiency of the schools; III. The board of education and the efficiency of the schools; IV. Cost as related to the efficiency of the schools; V. A general survey of the schools and their efficiency; VI. The teachers and their work; VII. A new course of study; VIII. The high school. An interesting feature of the inquiry was the examination of "all the pupils in the fifth, sixth, seventh, and eighth grades in the four fundamental principles of arithmetic, English composition, writing, and spelling." Special attention was given to the high-school situation, because it was believed that any defects in the elementary schools would be apt to appear very clearly under the strain of the "transition" which pupils make in passing to the secondary teachers. The report includes 19 statistical tables. In making the 29 recommendations which are presented throughout the

report and summarized at the close, the aim was to estimate the work of the system by comparing it with the best school practice in the cities of similar size and conditions and to apply, so far as possible, the "principles of scientific management."

The surveyor's summary of recommendations is as follows:

In the case of the entire system it is specified:

1. That a systematic effort be made to secure a more active cooperation on the part of parents who have children in the schools.

2. That there be a more thorough systematization of the work of the board of education, the superintendent of schools, and the other officers of the system, such as shall specify the functions and responsibilities of each.

With respect to elementary schools it is recommended:

3. That changes needed to insure greater protection against fire be made.

4. That ventilation of buildings be improved.

5. That additional ground be added where most needed and that more library books, dictionaries, and encyclopædias be provided where they are needed.

6. That kindergarten children attend but one session.

7. That the school day for first and second grade children be made as short as possible consistent with the requirements of the school law.

8. That the hours of required home study be greatly reduced.

9. That emphasis be shifted from an examination system of schools to a system which uses examinations as mere incidental features of its work. That formal examinations be given at the end of each term and that all students be required to take them.

10. That regular reports on the standing of pupils be sent to their parents twice a year and irregular ones whenever they are necessary.

11. That the authority of supervisors of instruction in special subjects be strictly defined.

12. That principals be not required to teach so much, and thus be left more free for their work of supervision.

13. That meetings be held for the discussion of recent contributions to the literature of education.

14. That a systematic effort be made to further reduce the number of over-age pupils in the several grades.

15. That teachers do more individual work with backward children, and, if possible, that another ungraded room be opened for irregular pupils.

16. That an effort be made to secure greater permanence in the teaching staff by raising the salary of teachers.

17. That a new course of study be framed. Some changes which should be made are suggested.

18. That standards of quality be raised and standards of quantity be lowered.

19. That teachers do less and pupils do more in the daily work of the schools.

The situation regarding the high schools led to the following recommendations:

20. That a librarian be appointed at the high school and all needed books be supplied.

21. That all the shops needed for good technical work be equipped as soon as funds are available.

22. That a gymnasium, preferably an open-air one, be equipped at once.

23. That a male physician be detailed to make the health examinations of boys at the high school and that the physical directors make such independent examinations as they need to make to carry on their work to advantage.

24. That formal examinations be required only at the end of each term and that all students take them; that regular reports be sent home twice each year, irregular ones whenever necessary; that after repeated failures students be put into a lower class.

25. That the practice of having students return in the afternoon to do work which should have been done in the morning be abolished and that teachers arrange to hold regular office hours for the convenience of students who may wish to consult them.

26. That a systematic effort be made to cut down the number of failures in high-school work; that the chasm between the elementary and high schools be bridged.

27. That a six-year high-school course be established and that provision be made so that pupils who have finished six years of elementary school work may then elect either to take a six-year high-school course or instruction in a vocational course, which should be established, or go on in an eight-grade elementary school as at present.

28. That provision be made for vocational assistance.

29. That high-school students be required to give up membership in all academic secret societies and that the student organizations of the high school be built up.

MONTGOMERY COUNTY, MD.

The department of church and country life of the board of home missions of the Presbyterian Church in the United States of America has undertaken several sociological surveys to the end of advancing its own particular interests. In 1912 it published its report of the special study which was made of Montgomery County, Md., at the invitation of the Montgomery County country life committee. Two investigators, Mr. E. S. Eastman and Mr. H. N. Morse, were in the field from January to April. The survey included a special study of the schools, which was designed to be complete and accurate. Its plans were perfected through the assistance, among others, of Assisant Secretary of Agriculture W. M. Hayes, E. B. Wood, county superintendent of schools, and A. C. Monahan, of the United States Bureau of Education. The report (120 pp.) is well prepared, and includes 2 maps, 10 diagrams, 26 tables, and many pictures.

The topics include: Location and topography; economic conditions and resources; the business of farming; population; social needs; social welfare and organizations; recreation; Sandy Spring neighborhood; educational conditions; religious conditions and activities; and concludes with suggestions and recommendations concerning economic and educational conditions. The educational section (pp. 66-89) constitutes about one-fifth of the entire report. A fuller report of the educational survey was published by the Bureau of Education as Bulletin No. 32, 1913, Educational Survey of Montgomery County, Md.

A statement of the facts respecting the schools of the county includes a description of the county school system of Maryland, the detailed enumeration of the schools for the white and for the colored children, the material equipment (including grounds), the teaching force, the curriculum, the school budget, patrons, the education of adults, and the private schools and colleges in the county.

The educational recommendations approve strongly of the county system of organization, since "under no other form of organization such rapid development has taken place in rural school advance," with the exception of efficient township organization in certain thickly settled sections of the county. The weakness of the system is most apparent in the amount of supervision of the teachers, which is left entirely to the county superintendent. The employment of three assistant superintendents for this work is definitely recommended. The course of study is found to be conservative in its traditional use of the common branches. It therefore needs a readjustment so that it "will be more closely correlated with the life and interests of the community." Especial attention is called to the need of instruction in elementary agriculture, domestic science, manual training, music, and drawing. The entire curriculum should be taught in terms of these subjects. The number of schools is found to be too great, and, in the interest of efficiency and economy, consolidation of schools is recommended on the ratio of one school for every 15 square miles. In certain sections this area might be increased to 25 square miles. This plan of consolidation would reduce the overabundance of small elementary schools. The schools for negro children "are relatively inefficient, as compared with the white schools, * * * and are poorly housed, equipped, and supported." Tables 18–24, inclusive, in the appendix give the enrollment of the white and colored schools by grades; the teaching of special subjects; the distribution of school expenditures; and the sources of school money.[1]

VERMONT: SECONDARY EDUCATION.

Soon after the establishment in 1908 of a department of pedagogy at Middlebury College, Vermont, the college recognized—

the necessity of a more intimate knowledge of conditions in the high schools and academies of Vermont, their special needs and problems, in order to a clearer understanding of its mission in helping these schools to be more efficient means in serving their constituents.

[1] Mention may be made of seven other "rural" or "rural life" surveys made by the department of church and country life of the board of home missions of the Presbyterian Church in the United States of America, Dr. Warren H. Wilson, superintendent, and Miss Anna B. Taft, secretary:

a. A Rural Survey in Missouri (Adair, Sullivan, and Knox Counties), E. F. Eastman and A. T. Boisen, (no date);

b. A Rural Survey in Tennessee (Gibson County), A. T. Boisen, 1911;

c. A Rural Survey in Arkansas (Benton County), J. O. Ashenhurst, 1912–13;

d. Ohio Rural Life Surveys: (1) Northwestern Ohio (Seneca, Hancock, Allen, and Defiance Counties), R. A. Felton, field director, 1912, 1913; (2) Southeastern Ohio (Washington, Morgan, Athens, Vinton, Lawrence, and Adams Counties), R. A. Felton, 1912, 1913; (3) Southwestern Ohio (Darke, Montgomery, Preble, and Butler Counties), Dr. Paul L. Vogt, professor of sociology, Miami University, April, 1913; (4) Greene and Clermont Counties, Dr. Paul L. Vogt, March, 1914.

These surveys follow in general the scheme detailed in the Montgomery County, Md., report, in which rural school conditions are one of the several economic and social phases of life surveyed. The four Ohio surveys were made in part during the Ohio State survey, and the data were treated accordingly.

Accordingly, Prof. R. McFarland, professor of secondary education, conducted an inquiry through a personal visitation extending over a period of four months, from October 1, 1911, to February 1, 1912. In making the visitation and inspection, the inquirer followed the form used by the inspector of high schools in the State of Maine. The scope of the inquiry included 54 high schools, 16 academies, 2 normal schools, the industrial school, and the State agricultural school. This represented 88 per cent of the teaching staff and 77 per cent of the secondary school system of the State. The classroom work of 209 teachers in 296 recitations was observed.

The chief topics of inquiry included physical conditions, such as building, grounds, heating, lighting, sanitation, janitor work, ventilation, equipment in library and laboratory, teaching staff, the amount of education and professional training, experience in teaching, subjects taught and salaries, the observation of recitations, the organization of the high schools, the attendance of students, the courses of study, and a group of miscellaneous items including working spirit of school, management, discipline, spirit of community, and deficiencies in preparation of the entering class. The report (43 pp.) was published by the college in May, 1912.

The chief discovery of this inquiry into the conditions of high schools and academies in Vermont was "the need of complete reorganization of the system." To this end the following suggestions were made:

1. That the work of the State department of education be extended more completely into the field of secondary education.

2. That the State require inspection of high schools and a satisfactory conformation of approved schools to a minimum standard.

3. That a more detailed system of records and reports for schools be developed, that a cumulative record of every pupil be kept in every school and that approved schools take inventories of library equipment, laboratory supplies, and other school property annually, and furnish duplicate copies of the same to the department of education.

4. That approved schools possess a minimum laboratory equipment for each of the major and one of the minor sciences offered in its course.

5. That approved schools possess standard lists of books for each course offered in history.

6. That syllabi and manuals for the teacher's guidance be furnished to the high schools by the department of education.

7. That certification of teachers entering secondary school service be based on higher academic and professional attainments.

8. That enriched courses of study be provided for both the regular four-year high school and prospective six-year high schools.

9. That the school year be increased to 40 weeks for approved high schools and to 36 weeks for eight years for elementary schools. In the latter case it would result in the saving of a year of the pupil's time over the present practice of having nine years of 32 weeks each.

10. That six-year high schools be established wherever practicable, these schools to continue the work of six-year elementary schools that have 36 weeks in the school year.

11. That more careful provision be made for the inspection of the heating, lighting, sanitation, and ventilation of school buildings.

12. That the high schools in the smaller communities which show a spirit of liberal support of schools be encouraged by special State appropriations.

SYRACUSE, N. Y.

In May, 1912, a report on the public schools, made by Horace L. Brittain, of the training school for public service conducted by the Bureau of Municipal Research in New York City, was submitted to the associated charities of Syracuse. The report presented 19 "significant facts disclosed by the school survey," and detailed 22 "constructive suggestions for correcting the defects noted in the preceding significant facts." Seven schools were visited and the office arrangements observed. Among the findings, emphasis was placed upon school grounds, sanitary, hygienic, and æsthetic conditions of school buildings and rooms, overcrowding, nonattendance, nonpromotion, low salaries, and inadequate records for gathering over-age elimination and physical and mental defects. In eight particulars Syracuse is credited with having "the germs of several advanced movements." The printed statement of the report lists four things which have been done relating to systems of records, over-age accounting, dry sweeping, and playgrounds.

GREENWICH, CONN.

At the town meeting of Greenwich, Conn., on December 9, 1911, the joint report of the special committee and the town school committee, as to the needs of the town in the matter of school accommodations, was adopted. Owing to "an increase during the previous seven years of more than 50 per cent of the number of enumerated children of school age," the problem of school accommodation had become very acute. The situation was one calling for relief, and the investigation was devoted to a study of this particular problem.

In June, 1912, an educational exhibit was held, in which were presented the results of the school investigation which had been conducted by the committee in cooperation with Dr. Leonard P. Ayres, of the Russell Sage Foundation. A report of this investigation is found in The Book of the Educational Exhibit of Greenwich, Conn., and in the address on "Greenwich schools from an outside standpoint," by Dr. Ayres, delivered June 15, at the closing session of the exhibit. The report is a brief, but striking, presentation of the conditions which were found. By the use of pictures, diagrams, and charts, the peculiar state of affairs in this town was convincingly presented. It was found, first, that there was no real school system, that only "a school conglomeration" existed; second, that Greenwich is the second richest town in America; third, that it had been maintaining a "penurious policy toward its public schools * * *

that is little short of appalling." The main points include the inadequate and bad conditions of the school plant, school sites, overcrowding and air space, fire protection, cellars, lighting, vermin, and toilets. The school needs that were pointed out include:

I. A bigger, better school budget, based on a generous bond issue and designed to care for future growth as well as present necessities.

II. A modern and adequate school plant, providing a seat for every pupil.

III. A permanent school policy and an intelligent public sentiment that shall demand, as the inalienable right of each child, pure air, sufficient warmth for comfort, uncontaminated water, lighting that does not ruin eyesight, protection from the perils of fire, school locations not dangerous to health, and decent toilets.

IV. Consolidation of rural schools with transportation of pupils to the more efficient and less expensive graded schools.

V. A truly democratic aim in Greenwich education, an aim that shall reach every child and the whole of every child, an aim that shall be as much concerned about the progress of every child as it is about its presence, and as much concerned about its health as it is about its head.

WISCONSIN RURAL SCHOOLS.

In August, 1912, the training school for public service of the New York Bureau of Municipal Research made its "Preliminary report on conditions and needs of rural schools in Wisconsin," containing the results of field study reported through the Wisconsin State board of public affairs, which conducted the study. The scope of the inquiry included—

a general examination of conditions in 27 counties in widely separated portions of the State, and a more detailed investigation of conditions in 131 schools in 13 counties.

The investigators were S. G. Lindholm, A. N. Farmer, and H. L. Brittain. F. S. Staley, field agent of the State board of public affairs, gathered most of the facts about rural-school accounting.

The report (92 pp.) is divided into the following seven parts: Factors which make for progress in rural schools; lax methods of controlling school expenditures; sanitary and educational conditions of rural schools; some serious defects of county supervision; some serious defects of State supervision; contrast between State supervision of State graded schools and State supervision of rural schools; suggested administrative and legislative remedies. The method of exposition used in the report details specific statements in such a way that it is difficult to summarize them. In presenting the material, 66 rubrics under special headings were used. It appears that emphasis was placed upon the primitive conditions of the rural schools and certain aspects of maladministration which were disclosed.

The 15 specific recommendations included the following:

1. The election of county boards of education at the general school election.

2. Specific conditions under which State aid should be given to county boards of education to assist in the proper maintenance of the office of county superintendent.

3. The appointment of inspectors to insure the proper teaching of agriculture and domestic economics.

4. The encouragement of the introduction of contests in these two subjects, and the promotion by free scholarships of the training of teachers of agriculture and domestic economics.

5. The addition of farm accounting, medical inspection, more agriculture, and methods of keeping records and accounts in the curriculum of the county training schools.

6. Raising the qualifications for obtaining the teacher's certificate.

7. A revision of the State Manual.

8. Increasing the staff of school inspectors.

9. A closer cooperation between the schools and circulating libraries.

10. The readjustment of school-district laws so as to insure the education of all children of school age.

11. Wider publicity of school facts.

12. A supervision of the use of school money.

13. An increase in State aid and State supervision of rural schools which should be classified in four groups for the purposes of subvention and inspection.

WESTCHESTER COUNTY, N. Y.

An interesting instance of the manifestation of the survey spirit is to be found in "a study of local school conditions" by Prof. Alexander J. Inglis, of Rutgers College, on the school reports in Westchester County, which was made during the summer of 1912, under the auspices of the Westchester County research bureau. School conditions were not studied, since the work was conducted chiefly during the vacation time.

It was hoped, however, that by an examination of the previous records of the various schools and superintendency districts, there should be shown the efficiency of the schools in respect to the following particulars:

1. As to how far the compulsory attendance laws of New York State are carried out.

2. As to how rapidly or how slowly progress is made through the grades by those who attend the schools.

3. As to how capable the schools are in the matter of carrying all the students all the way through the scheduled courses of study

4. As to the total cost, to the taxpayer, of the school system, and the comparative cost per pupil in the various districts.

The report (23 pp., appendix 6 pp.) emphasizes the importance of school reports and proper publicity being given to them for the benefit of taxpayers. Detailed rubrics presenting "the elements of efficiency which should be reported" center upon attendance, continuation, curriculum, and economy. The accessible records of the entire county were examined so as to show the rules and procedure by which the rich material in school registers may be collected and treated so

as to be made to yield the most desirable information respecting the activities in the school system. Formulas are worked out and illustrated by tables in such a way that the study becomes a contribution to the material on school records for administrative purposes.

THE FORTY-EIGHT STATES.

In December, 1912, the division of education of the Russell Sage Foundation published "A Comparative Study of the Public School Systems in the Forty-eight States." The purpose of the study was to make—

available to legislators, school workers, and others having at heart the interest in public education, salient facts concerning school conditions in all the States.

The study (33 pp.) comprises 11 tables, 12 diagrams, and 4 maps. The statistical material was based, so far as possible, on data published in the Report of the United States Commissioner of Education for 1911. The figures—

were derived from official sources and every care exercised to insure their accuracy. * * * The object of the work is to render available to each State the experience of all.

The general method was to follow the lead of comparative columns in such a way as to establish on the basis of the "10 tests of efficiency" the approximate rank of each of the 48 States in 1910. The 10 tests of efficiency adopted were: The number of children enrolled in school; the value of public school property; the average annual expenditure per child; the number of school days of attendance by each pupil enrolled; the length of the school year; the average attendance; the amount of school expenditure compared with wealth; the daily cost of schooling a child; the number of students in high schools; and the annual salary of teachers.

The topics presented in the tables, diagrams, and maps are as follows: Children in school and out; half a billion a year for schools; investment in school plant; expenditure per child of school age; days of schooling per year if each child got his share; how long a year and how much attendance; compulsory-attendance legislation; what they have and what they spend; the daily cost per child attending; school mortality and survival; workers and wages; our army of illiterates; schoolhouse construction legislation; textbook legislation; medical inspection legislation.

By a simple, yet ingenious device, a final chart was tabulated in which each of the 48 States was given its ranking position under each of the 10 tests of efficiency, as determined by the data selected which its official departments had made public.

ATLANTA, GA.

In December, 1912, Mr. S. G. Lindholm, of the New York Bureau of Municipal Research, presented his report of the survey of the department of education of the city of Atlanta, which was made for the committee of municipal research of the Atlanta Chamber of Commerce. Four days' time was given to the examination of the city's department of education. The findings are represented under the following different headings: Evidence of progress noted; weaknesses in the present administration; defects in administrative records; recommendations; expenditures. This study emphasized "the importance of the record and publicity side of school work," because only through such "controlling records" can the satisfactory promotion of education be secured.

The report presents 21 "tentative constructive suggestions for correcting conditions noted in Atlanta's schools during a short field survey." Many of these enumerate from four to seven minor points, making the recommendations fairly exhaustive. They include among other items the following: The reduction of possible dangers from fire; importance of all forms of sanitary conditions; the installation of continuous record cards; the adoption of uniform financial records; taking an immediate school census; organizing the quality of classroom instruction; a fact basis of attendance, school property, etc., for the annual budget estimates; the importance of school playgrounds and the provision of adequate play space; the appointment of an assistant to the superintendent, who shall make continuous tests of the classroom efficiency of teachers; a wider use of the public-school plant; and the strengthening of public-school sentiment through the school board and the chamber of commerce.

BOISE, IDAHO.

Two years after the inquiry by Supt. Kendall, a second study of the public schools of Boise, Idaho, was made by Prof. Edward C. Elliott, of the University of Wisconsin; Prof. Charles H. Judd, of the University of Chicago; and Prof. George D. Strayer, of Columbia University; and published as The Expert Survey of the Public-School System of Boise, Idaho. This report of 31 pages includes a special 4-page report on instruction, by Prof. Edward C. Elliott, based upon two days' investigation of the schools. The scope of the examination included the course of study, the methods of supervision, the character of the teaching staff, the distribution and progress of children throughout the grades, the material and equipment, and the expenditures involved in the conduct of the system. Most of the necessary material was available in the office records. Where additional facts were needed, they were secured through the

school officers or personal inspection. The study was greatly facilitated through the cooperation of the local officials.

The findings and recommendations of the committee are briefly summarized as follows:

1. As to the course of study: This has been arranged on a comprehensive basis with proper attention to fundamentals and with a commendable effort to adapt the instruction in the schools to the practical demands of modern community life.

2. The supervisory staff is organized in accordance with the practice prevailing in the most progressive cities of the United States. There is evidence of complete cooperation between the supervisors and the teachers. Further cooperation between the several supervisors of the elementary schools and the high school is suggested.

3. As to the teaching staff: A high standard of qualification has been maintained for the teaching staff. In the matter of selection, salary, and tenure of teaching, the present practices represent an enlightened and progressive school policy.

4. As to the classification and progress of children through the school system: By comparison with 318 other cities in the United States there is definite evidence that the problem of the proper classification of children as to over-age is being successfully handled; that adequate provision has been made to permit children of unusual ability to advance rapidly; that pupils are retained in school to an extent that is equaled by very few cities.

5. As to the school plant: This is in a highly satisfactory condition. The present policy of the school authorities as to the selection of sites, the construction, repair, and care of school buildings, and the provision for play parks is approved.

6. As to school expenditures: On the basis of a comparison with 37 selected cities, it is found that: (*a*) Owing to the high qualifications of teachers and the variety of school activities, Boise ranks fairly high in the cost of elementary education; (*b*) owing to careful management, the cost of high-school education in Boise is less than in half of the other cities; (*c*) owing to the very large percentage of children in the high school, Boise devotes to the high school a relatively large proportion of all the money spent for public education; (*d*) a larger part than is customary of the money available for public education is devoted to paying for instruction and a smaller part for maintenance and operation of the plant.

7. As to community cooperation: The community and the school system cooperate in a most commendable manner. The school officials enjoy the general confidence of the community and receive its undivided support in their efforts to develop the school system to the highest possible degree of effectiveness.

The specific recommendations were as follows:

I. That the school day, the school week, and the school year be lengthened, in order better to adapt the course of study and to utilize completely the school plant.

II. That the eighth grade be eliminated.

III. That the high-school course of instruction be extended by giving advanced courses ordinarily given in the first years of college.

IV. That the work of the supervisory staff be developed by (*a*) continuing and changing exhibits of school work, (*b*) demonstration lessons, (*c*) the cooperation of teachers in the making of courses of study.

V. That a systematic record of teachers as to training, experience, appointment, promotion, and performance be instituted.

VI. That special classes for slow and backward children be established.

VII. That a system of cumulative records of pupils be instituted.

BRIDGEPORT, CONN.

On February 20, 1913, Supt. James H. Van Sickle, of Springfield, Mass., presented to the special committee on investigation of the school system his report on the condition and needs of the Bridgeport schools. In conducting the investigation, for the results of which he assumed "full responsibility for every portion," he was assisted in parts of the investigation named by the following persons: Dr. Leonard P. Ayres—The expenditures for schools compared with those of other cities; Dr. Andrew W. Edson—City normal school; Dr. Henry S. West—The high-school situation; Mr. Wilbur F. Gordy—History in the grades and high school; Mr. Egbert E. MacNary—Industrial conditions; Mr. Edwin Hebden—Arithmetic work in the grades; and Mr. Edward H. Webster—Language work in the grades.

The report (129 pp.) deals with the following topics: The school board, the financial support of the school system, distribution of pupils in the schools, proposed changes in organization, the city normal school, the high school, the industries of Bridgeport, history, English, arithmetic. Fifteen tables, seven figures, and seven diagrams, with a number of minor tabulations, contribute to the exposition of the method and results of the investigation. This inquiry is marked because of the evident concentration of its studies on the teaching aspects of the school system.

The findings are summarized in 67 statements arranged under seven headings at the end of the report (pp. 124–129), while the recommendations with preliminary comments, under nine headings, are stated at the beginning (pp. 5–10). The former give a fairly complete view of the features of the school system, and are as follows:

Financial Support of the School System:

1. How much education and how good an education a community actually gets for its children depends, first, on how much money it spends; and, second, on whether or not it uses each dollar appropriated so as to get the best and largest educational return.

2. Bridgeport spends annually for public schools more than a third of a million dollars received from local taxes, State funds, and tuition fees.

3. Bridgeport spends $26.81 each year for the education of each school child, while the average for 11 other cities of similar size is $41.13. To put the Bridgeport schools on a par with those of the average city of like population would cost about $200,000 additional per year.

4. Bridgeport teachers receive lower salaries and teach larger classes than do those of any other city compared, which means that Bridgeport children receive cheaper teaching and less of it than the children of the other cities.

5. Bridgeport spends less per child for every separate item of school expenditure than does the average city of like size, which means that Bridgeport children get a smaller quantity or a lower quality of every sort of educational opportunity than do the children of the other cities.

6. Bridgeport citizens spend less per capita for city support than do those of any other city of similar size save one, but they spend less for their public schools than do the citizens of any other city compared.

7. The particular items in which the Bridgeport expenditures are most deficient, when compared with those of other cities, are the support of the business office of the board of education, the purchase of stationery and supplies, the payment of janitors, the support of the superintendent's office, and the purchase of textbooks.

8. Among the 168 towns and cities of Connecticut, Bridgeport ranks second, third, and fourth in seven comparisons of educational resources, and one hundred and fifty-third and one hundred and fifty-fourth in two comparisons of educational expenditures.

Differentiation of Functions, Supervision, and Organization:

1. All nominations of teachers should be made by the superintendent of schools. The board's function here is to accept or reject.

2. The supervision is notably insufficient in amount. Employ an assistant superintendent and at least one supervisor of primary work, and two assistant supervisors of drawing and handwork.

3. Employ a stenographer and an additional clerk trained in statistical methods to conserve the time of the superintendent.

4. Conserve the time of principals for supervision by relieving them of the bookkeeping incident to the penny-savings system as now conducted.

5. Carry further and make more systematic the grouping of upper grammar grades in centrally located buildings, and provide for differentiation of work in accordance with the needs of different groups of pupils. Conduct the instruction of these classes on the departmental plan.

6. The schoolrooms are overcrowded, and they lack adequate teaching equipment.

7. There are no rooms available in which to organize special classes for foreign-born, backward, and other exceptional children.

8. The city now needs 32 additional rooms to take care of ordinary classes. To provide these rooms at once, and in addition provide for further needs, involves too great a charge upon the resources of a single year. Future generations may properly be allowed to share the cost of improvements as permanent as schoolhouses.

9. According to generally accepted standards, too few children in the elementary grades are making either rapid or normal progress. Both retardation and elimination are excessive. In the fifth grade 59 per cent of the pupils are over age, and 51 per cent of all pupils enrolled have left school before reaching the sixth grade.

10. The schools are strong in drill processes, less strong in reasoning.

11. It is questionable whether formal examinations should play so prominent a part in the promotion of pupils as they appear to do.

12. The discipline of the schools is superior and the spirit of the teaching force notably good.

13. A higher maximum salary for teachers, if awarded strictly on the basis of merit and not merely on length of service, would be a wise investment.

The City Normal School:

1. The normal school is seriously handicapped by lack of facilities of every kind. It needs more rooms, more teachers, more books and apparatus, and more opportunities for observation work and practice teaching.

2. The entrance requirements are too easy.

3. The local normal school should not furnish more than two-thirds of the teachers appointed annually.

The High School:

1. Many of the obvious weaknesses of the school on the educational side are direct consequences of the unsatisfactory physical conditions under which the work is being conducted.

2. The discipline of the school is good.

3. Too little money is expended on the school to give the boys and girls the educational experiences to which they are entitled.

4. Develop the present commercial course into a coherent four-year course and offer a short clerkship course.

5. Greek is being taken by so few pupils that its retention involves an extravagant use of teacher time in view of the other needs of the school.

6. Provide a two-year course in Latin open to pupils not going to college.

7. Provide an industrial department with a full four-year industrial course and a full four-year domestic-science course. Provide shorter courses for boys and girls who will leave at the age of 16.

8. In cooperation with the bureau for granting work permits, arrange for vocational guidance.

9. In the new high-school building provision should be made for the industrial department.

10. The shops should be strictly industrial, both as to the arrangement of their equipment and the type of work done in them.

Industrial Education—Guiding Principles:

1. There is a certain minimum of general education which every individual ought to have in order that he may be an intelligent citizen and get a reasonable amount of satisfaction out of life.

2. It is unreasonable to suppose that this necessary minimum of training can be given in less than six years of schooling.

3. No essential part of this general education should be sacrificed in order to include training for industrial efficiency.

4. After the general education has been taken care of, there should be provided for the boys in the last two or three years of the elementary school opportunities for training in a number of lines of practical work for the purpose of developing broad industrial intelligence, under the guidance of competent teachers, and to assist in the choosing of a life work.

5. General education for girls should be supplemented in the last two or three years of the elementary school by opportunities corresponding to those proposed for boys and by practical training in cooking, sewing, dressmaking, millinery, marketing, keeping of household accounts, sanitation, and hygiene, for the purpose of helping them to an understanding of the principles of home making.

6. After the completion of the general education, there should be provided opportunities for practical industrial courses, closely related to the activities of the community, open to those boys and girls who elect to take them, which will increase the general industrial intelligence and efficiency of those who must become wage earners at the earliest possible time.

7. The methods and processes employed in industrial courses should be organized about the making of useful projects, rather than abstract exercises which result in a mere waste of material of scrap.

8. The products resulting from the industrial activities of the school shops, while useful, should not be such as to involve unfair competition with the industries of the communities.

9. So far as practicable, the products of the school shop may be those classes of articles of equipment and supplies required for use in the school system itself, and articles which are not produced in the community.

10. The different lines of industrial work should be taught by teachers who are themselves skilled workers in the processes to be taught.

11. The programs of the industrial courses should be based on a study of the requirements of the pupils to be taught. Careful experimentation in various cities seems to have demonstrated that a six-hour day produces the most efficient results for pupils of 14 to 16 years of age.

12. The classes should be small enough to make efficient instruction possible in complete processes from raw materials to finished product.

13. The industrial courses should be controlled, under the authority and direction of the board of education, by advisory committees which should contain equal representation of wage earners and employers in the industries concerned.

14. The board of education should employ a trained expert to organize and direct the entire scheme of manual training, household training, and industrial courses, and give him sufficient freedom to develop the work.

15. Nothing should be done that will result in diminishing the facilities and opportunities now existing for those boys and girls who desire to continue in a course of general education in order to prepare for high school, college, technical or professional school, etc. Rather, these facilities should be extended and improved in every way possible, and made available for an increasing number of individuals. The school system must provide opportunities for all boys and girls who are qualified, and have the ambition, to pursue higher courses in professional training that are equal in every respect to those provided for industrial education.

16. A careful study should be made of local conditions, and a modest beginning made in those directions where the needs seem to be most immediate and pressing, subsequent expansion being based on continued study and experimentation.

17. Provision should be made of opportunities for supplemental instruction in general education, or industrial education, or both, for workers already engaged in the industries.

Course of Study, Geography, History, Arithmetic, etc.:

1. If the directions in the course of study were expanded into a syllabus of each subject, and the requirements under each grade stated under subject headings rather than by pages in the textbooks, it would have added usefulness.

2. The division of the time allotted to given studies between study and recitation has much to commend it.

3. The work in geography deserves special commendation.

4. The work in history and citizenship ought to receive the same earnest attention that has made the work in geography so satisfactory.

5. In arithmetic the emphasis is rightly placed on fundamental operations and intelligent solution of problems. Bridgeport pupils who complete the sixth grade take high rank in this subject.

6. It would be well to make a careful study of the effect of the relatively high requirements in arithmetic upon promotion, particularly in the lower grades.

English:

1. The work in English lacks unity. Spelling, punctuation, and technical grammar are taught as ends in themselves, not as aids to self-expression.

2. The course of study in English is indefinite and general. Technical grammar is given more time than composition.

3. Reading is taught in a uniform manner throughout the system. The method used is, for the greater part, based upon a knowledge and use of phonetics. Objective teaching is thus neglected. The same texts are used in the schools composed of foreigners as in those attended by Americans.

4. There is little uniformity in the teaching of oral composition. This work, however, is admirably done in some schools.

5. Little emphasis is given to plan work. As a result the compositions often show an illogical arrangement of thoughts and a slight feeling for the relative value of ideas.

6. The penmanship, as a whole, is fairly satisfactory.

7. There is no course in English literature and composition offered in the normal school.

8. The work in each grade should be unified with English as a basis. Spelling, punctuation, phonetics, and technical grammar should always be taught as aids to self-expression, not as an end in themselves.

9. Revise the course of study in English, giving definite and detailed directions for the teaching of composition. Give more emphasis to composition teaching, less to technical grammar.

10. Give language lessons preparatory to reading. Depend less upon the phonetics and more upon connecting the printed text with the thought to be conveyed by the reader. Use in the schools composed almost entirely of foreigners texts expressly prepared for the language training of such children.

11. Emphasize oral composition. Train the children, in all work, to talk in paragraph units. Use this oral work as an immediate preparation for written composition.

12. Have the children make outlines before attempting any oral and written composition work. This should develop a logical arrangement of thought and a greater feeling for the relative value of ideas.

13. A course in English literature and composition should be offered in the normal school to give the pupil-teachers a broad, thorough training in English. Such a course would enable them later to do original and progressive work in the grades.

ST. PAUL, MINN.

On March 4, 1913, Mr. A. N. Farmer presented his full report of "a six-day survey," made by the Bureau of Municipal Research of New York City at the request of the committee of thirty *re* need of St. Paul's public schools, conducted in the preceding month. The scope of the inquiry was limited to the following four questions:

Is the central office organization adequate?
Are the financial records adequate?
Are the educational records adequate?
Is the teaching observed in 40 classes efficient?

The full report was published in the local newspapers. The report on classroom instruction in St. Paul's elementary schools forms 16 pages (pp. 17–32) of a separate bulletin on the Waterbury and St. Paul inquiries in the series of Help-Your-School Surveys. Observations as to classroom instruction were made in music, reading, language and composition, grammar, spelling, arithmetic, geography, and history. The findings were as follows:

In 23 of the 54 classes visited the instruction was excellent: 8 in reading; 5 in geography and history; 4 in arithmetic; 2 in music; 1 in manners, phonics, language; and 1 kindergarten class.

In 31 of the 54 classes the teachers showed the need for helpful and sympathetic supervision; 12 in reading; 7 in arithmetic; 4 in grammar; 4 in geography and history; 2 in language; 1 in spelling; and 1 in drawing.

Of 31 teachers whose work showed the need for supervision and direction, 24 protested that they were not to blame for existing conditions, and raised objections to (*a*) the textbooks supplied for reading classes and the lack of supplementary material; (*b*) the failure to require systematic instruction in phonics; (*c*) the course of study in grammar and the course of study in spelling; (*d*) the textbook and course of study in arithmetic.

In at least 30 of 54 classes visited the subject matter of the textbooks was dull, deadening, and without interest to pupils.

In 45 of 54 classes, teachers took a moment or two to open windows and gave pupils a sharp gymnastic drill. The beneficial results were evident.

In two rooms some children could reach the floor with their feet when sitting. In not a single room visited were seats properly adjusted to all pupils.

The finish of walls in all buildings visited was a dark green. This decreased the light, especially in rooms where the lighting area of windows was far too small to properly light the rooms.

In six of eight buildings it was found that children clean all erasers and blackboards. The pounding together of erasers is unhealthful and insanitary, and results in children's breathing not a little of the chalk dust.

In 30 rooms blackboards were found in a most untidy condition, partly due to poor cleaning and partly to negligence and carelessness in erasing written work.

In but 6 out of 38 recitations in which the use of blackboards was necessary to get the best results were the blackboards used. In two rooms most of the blackboard was so covered up it could not be used. In one room the principal explained that he did not like to insist on clearing the boards because it would hurt the teacher's feelings.

The records showed that since September, 1912, and up to February 14, 1913, every school in the city had been visited by the superintendent once and a second visit had been made to most schools. In all, over 100 visits had been made. The record shows unusual energy in visiting on the part of a superintendent.

In two of the buildings visited meetings of principal and all teachers are held regularly and are made the occasions for carefully going over school problems that all teachers are interested in. Meetings with groups of teachers having common problems are held as frequently as needed, and "experience" meetings are held every six weeks, when each teacher relates facts that show defects in instruction and discipline. These are considered and discussed. Frequent conferences with individual teachers are held by the principal to work over special problems.

WATERBURY, CONN.

A three-day survey in February, 1913, was made of the Waterbury schools by Dr. Horace L. Brittain, of the New York City Bureau of Municipal Research.

It was included at the request of a committee of business men as part of an investigation of the organization and business procedure of all city departments—financial methods, departments of police, fire, health, charities, water parks, public works, public library, clerks, inspector of buildings, etc.—which was submitted by the bureau April 16, 1913. The summary appeared in the local papers, and is reprinted in the pamphlet referred to under St. Paul (pp. 2–16).

The summary is presented under four divisions: Conditions favorable to efficiency; defective conditions easily corrected by slight improvements in administration herewith suggested; defective conditions easily corrected with suggestions for reorganization for which statutory enactment is necessary; defective conditions easily corrected but requiring increased appropriation, with constructive suggestions. The first of these topics details observations made on administration, construction and sanitation, textbooks and course of study, and outside cooperation.

NEW YORK CITY.

The most extensive and notable school survey is that which was made of the schools of New York City. Few have realized that this survey was planned and authorized before the first study mentioned in this list was undertaken. Its conception, progress, and results are therefore most important. The initial resolution establishing the committee on school inquiry was adopted by the board of estimate and apportionment on October 26, 1910. Owing to the magnitude of the undertaking, the report on the educational aspects of the inquiry, which was begun on June 1, 1911, was not submitted by Prof. Hanus until July 1, 1912. Owing also to various uncertainties incidental to the progress of the whole undertaking, the final report of the committee was not made until May 29, 1913. However, the Goodnow-Howe report was submitted on May 31, 1913; the Baskerville-Winslow on July 1, 1913; the joint Armstrong-Knox report on July 24, 1913.

The origin of the inquiry is to be found in the difficulties, extending over several years, encountered in adjusting the estimates of the board of education for additional sites, buildings, and teachers.

The report states:

> During the budget hearings of October, 1910, it became evident that the board of education did not have proper evidence at hand to show the need for funds requested in the budget estimate and had not formulated the budget requests with any well-coordinated program in mind. Accordingly, the board of estimate and apportionment adopted the following resolution:
>
> "*Resolved*, That a committee of three members of the board of estimate be appointed by the mayor to conduct an inquiry into the organization, equipment, and methods, both financial and educational, of the department of education, including such plans and proposals as may have been formulated or may be under consideration by the board of education for extending and developing its educational activities, and that for this purpose the committee be authorized to associate with it such experts within and without the government of the city of New York as may assist it in the conduct of this inquiry and in the formulation of recommendations of this board, and that it be further authorized to employ such assistants as it may find necessary for the purposes of this inquiry."

The committee on school inquiry included John Purroy Mitchel, president of the board of aldermen; William A. Prendergast, comptroller; and Cyrus C. Miller, president of the Borough of The Bronx.

Prof. Paul H. Hanus, of Harvard University, was engaged to take general charge of the educational aspects of the inquiry. He was given the privilege of nominating his own assistants, all of whom received the approval of the committee. These 11 specialists, with the field work assigned to each, were as follows:

> Frank P. Bachman, assistant superintendent of schools, Cleveland, Ohio—Statistical studies pertaining to the need of elementary school-teachers, promotions, and part-time intermediate schools; Edward C. Elliott, professor of education, University of Wisconsin—Organization and methods of the supervisory staff, including the board

of superintendents, district superintendents, directors of special branches, board of examiners; Frank M. McMurry, professor of elementary education, Teachers College, Columbia University—Teachers and teaching in the elementary schools, together with the supervision of their schools by the principals, and elementary school course of study; Jesse D. Burke, director of the Bureau of Municipal Research, Philadelphia—Compulsory attendance service; Herman Schneider, dean of the college of engineering, University of Cincinnati—Vocational schools; Frank W. Ballou, director of school affiliation and assistant professor of education, University of Cincinnati—High schools, organization and administration; Ernest C. Moore, professor of education, Yale University—Board of education and local school boards; Calvin O. Davis, assistant professor of education, University of Michigan, and inspector of high schools—High-school courses of study (except commercial courses); Frank V. Thompson, assistant superintendent of schools, Boston, Mass.—High school of commerce, commercial high school, and commercial courses in high schools; Henry H. Goddard, director department of psychological research, New Jersey Training School for Feeble-Minded Boys and Girls—Ungraded classes; Stuart A. Courtis, head of department of science and mathematics, Detroit Home and Day School, Detroit—The Courtis tests in arithmetic for about 30,000 children in the 4A–8B grades of the elementary schools and in at least one high school.

The committee's work included also an inquiry into the condition of the school plant and the business system and accounts of the board of education. The following were the specialists and their respective studies:

William H. West, chartered accountant—Organization of the office of the secretary, and the organization and work of the bureau of audit and accounts, department of education; Marvyn Scudder, accountant—Investigation of complaints and the bureau of supplies of the board of education; E. W. Stewart, accountant—Janitorial compensation, and accounting methods of the bureau of supplies; W. A. Averill, investigator of the Bureau of Municipal Research—Organization and filing methods of the office of the city superintendent and board of associate city superintendents; Charles G. Armstrong, consulting engineer—The condition and efficiency of public-school buildings; Dr. Frederic C. Howe, director of the People's Institute—The degree of utilization of the school buildings and plants; Prof. Charles Baskerville and Prof. C. E. H. Winslow, of the College of the City of New York—The air of New York City schools; joint investigation by Charles G. Armstrong and Francis J. Armstrong, consulting engineers, and William J. Knox, chemical engineer—The quality of air supplied to classrooms, and on the Baskerville-Winslow report; Charles G. Armstrong and Francis J. Armstrong—Delays in the location, design, and construction of New York public schools.

The committee on inquiry filed with the board of estimate and apportionment on October 1, 1912, a special report stating the reasons for recommending the rejection of the report of Ernest C. Moore (vol. 3, 457–604).[1] In lieu of this report the committee secured the services of the following specialists on the subjects named:

Frank J. Goodnow, professor of administrative law, Columbia University, and Frederic C. Howe, director of the People's Institute—Joint report on the organization, status, and proceedings of the department of education, city of New York.

[1] With the omission of the last chapter, the rejected report was printed in the (*N. Y.*) *City Record*. It has been published in full, with the title "How New York City Administers its Schools: A Constructive Study," World Book Co., 1913, as the first volume of the School Efficiency Series, edited by Prof. Hanus.

The final and complete report of all the investigations under the committee of school inquiry was published in 1913. It comprises three volumes aggregating 2,573 pages. The total number of days' work on both the educational and the business and administrative branches aggregated 6,567.37 days. The total cost of the investigations was $95,131. (Including items not listed in the report (vol. 1, p. 64), it is said the final cost aggregated about $125,000.)

The method and scope of the educational investigation as summarized by Prof. Hanus (vol. 1, pp. 132–133) were based upon the following principles, stated in the plan adopted and approved by the committee on July 10, 1912:

1. The scope of the inquiry as a whole, and in its details, must be restricted to what is reasonable to expect can be accomplished in the time and with the staff at our disposal. (This principle does not exclude, however, the definition or statement of problems to be solved by further investigation. Such problems are, indeed, perennial; and the report states many of them and suggests the procedure for their progressive solution).

2. Within the limits thus set we should endeavor to obtain as satisfactory answers as possible to the following questions:

(*a*) What instruction does the public school system of New York City provide, and is this instruction commensurate with the educational needs of the city in respect to (1) scope (2) quality (3) adjustment to individual needs (4) adjustment to social (including vocational) needs?

(*b*) (1) Do the technical administration and supervision show professional insight and helpful leadership within and without the school system? (2) Do they actively encourage and promote the professional growth and practical efficiency of the teaching force?

(*c*) Is the admission of competent and otherwise satisfactory new members of the teaching and supervisory staff properly safeguarded?

(*d*) Are the general organization and administration of the school system such as to promote the satisfactory discharge of the city's educational responsibility by the board of education and the local school boards?

(*e*) Further and in general: (1) Do initiative and cooperation under leadership, or do their opposites—passive conformity to instruction from above on the part of teachers, bureaucratic and chiefly authoritative control by the supervisory staff, and purely authoritative or arbitrary general direction and control by the board of education—prevail throughout the school system, and are the results of educational experience so gathered and used as to become effective guides for future effort? (2) Is there satisfactory provision for disinterested and adequate appraisal of results achieved, including experimental tests, to confirm or refute educational opinion within and without the school system?

As stated in the introduction to the report, the purpose of the inquiry was constructive throughout. We have not failed to appreciate the merits of the school system, and they are many; but since our chief purpose was constructive criticism, we have devoted ourselves more particularly to such defects as we have been able to point out, and to suggestions and recommendations for removing or minimizing them.

The method of the inquiry has been statistical, inspectorial (personal inspection by members of the staff), comparative (comparisons of New York City's schools and school system with those of other cities), and experimental so far as reliable experimental or scientific methods are available in education and could be employed; and we have

made much use of conferences with officials and members of the teaching and supervisory staff.

This method throughout aimed to ascertain the facts we needed for the purpose in hand, and to verify the facts and conclusions based on them so far as our time and opportunity permitted. We have been particularly careful not to make statements unsupported by facts where facts were needed; and we consistently objected, in spite of considerable pressure from without during the first months of the inquiry, to issue statements of findings, because we had not yet done all we could to assure ourselves of their validity. Moreover, we had no interest in setting forth defects in the school system until we were ready to make the constructive suggestions that we aimed at, and such suggestions (recommendations) could only be ready near or at the end of our work.

Our method also aimed at the cooperation of officers of the board of education and of the supervisory and teaching force in getting facts and in reaching and verifying conclusions; and, as stated in the introduction to the report, it is a pleasure to say that the attitude of the entire staff was, throughout the period of the inquiry, courteous, responsive, and helpful.

The scope of both the educational and administrative investigations is briefly indicated above in the list of special topics and problems assigned to the specialists, respectively. The findings and recommendations are extensively distributed throughout the entire report. In their most condensed statements these aggregate 175 pages, including the summary of Prof. Hanus "in the report as a whole."

The committee on school inquiry itself—

summarized the main conclusions and constructive suggestions upon which its investigators are in general accord. In presenting this summary the committee wishes it clearly understood that it is not in a position to pass final judgment upon the worth of those recommendations which deal with problems requiring treatment at the hands of those qualified by academic training and practical experience. They are listed herein in their logical order and in brief and conclusive form. All the suggestions which deal mainly with educational matters have financial significance. The more obvious facts of financial import are pointed out by the committee under the appropriate heads.

1. The course of study in all schools should be organized around human problems and made simple and elastic enough to permit of differentiation to meet the needs of different nationalities and groups.

2. The content of the course of study should be made as practical as possible, and special attention should be given to the development of commercial, industrial, and vocational subjects, emphasizing the larger and more important aspects of industrial and commercial activities.

3. The board of education should take necessary steps to effect the gradual elimination of teachers of special branches.

4. Each school as a neighborhood center should ally itself with neighborhood interests and take cognizance of local needs.

5. The board of education should make a careful investigation to ascertain whether cosmopolitan or composite high schools offering several different courses of study, or, small high schools with differentiated curricula, should be developed.

6. The board of education through the proposed bureau of investigation and appraisal or other bureau, should establish a fact basis for its educational, administrative, and financial work.

7. The board of education's attendance department should adjust its work so as to maintain discipline and control school attendance without resorting to police methods in checking truancy.

8. The educational administrative work of the department of education should be reorganized.

9. The board of education should carefully supervise the operation of heating and ventilating systems installed in the different public school buildings.

10. A comprehensive plan should be worked out for the wider use of school buildings for purposes of recreation, for public assemblage, and for civic and social gatherings.

11. The different administrative departments and bureaus of the department of education should be reorganized.

12. The accounting system of the board of education should be so adjusted as to make possible the fullest segregation of disbursement accounts along functional lines properly correlated with allied statistics, and their publication at least quarterly.

13. The board of education should provide for the collection and tabulation of all current data needed in order to enable it to know in advance what additional seating capacity is actually required throughout the city.

14. The permanent census board should be utilized by the board of education and should eventually be transferred to the board of education.

15. The board of education should be reorganized and its membership reduced from 46 to 8, with 16 votes as now distributed in the board of estimate and apportionment.[1]

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[1] A digest of the New York school inquiry was submitted to the New York Board of Education on July 17, 1913, by the Bureau of Municipal Research. In the printed report of this material (84 pp.) a summary of the findings and recommendations is offered. For the educational part of the survey this includes:

20 rediscoveries for New York's public schools, by the school inquiry and school board.
70 features of the New York schools were praised by 12 investigators.
57 defects were found in the method of examining and rating teachers and principals.
20 defects were found in the wasting of time of superintendents.
58 defects were found in the activity and supervision of elementary teachers.
10 defects were found in the age-grade reports.
59 defects were found in the reports on nonpromotion.
8 defects were found in the method used in estimating elementary teachers needed.
21 defects were found in the handling of truancy.
24 defects were found in the ungraded classes for feeble-minded.
28 defects were found in the teaching of arithmetic.
47 defects were found in the administration of high schools.
13 defects were found in the high-school course of study.
24 defects made commercial courses ineffective.
15 defects were found in trade and night schools.
27 defects were found in the methods of running buildings.
15 defects were found in the method of building construction.
7 defects were found in overheating in some schools.
221 recommendations are noted, of which—
  55 clearly require additional money.
  22 are intended to save money.
  137 per se neither add nor save money.
  7 require State legislation.
38 further investigations were said to be necessary by 10 of the investigators.
35 subjects, not covered by the school inquiry were reported as suggested for investigation by teachers, principals, and parents through the school edition of *The Globe*.

Similar treatment of the Goodnow-Howe report presents the following:

19 features in the administration, legal and financial, were praised.
139 defects in the organization were pointed out as needing correction.
61 recommendations were named in this report, of which—
  15 clearly required additional money.
  28 neither directly add nor save money, but are intended to increase efficiency.
  7 were intended to save money.
  11 require State legislation.

On September 1, 1914, a committee of eight district superintendents, of which William L. Ettinger was chairman and Joseph S. Taylor secretary, published "The reply of the association of district superintendents of New York to certain findings and recommendations of Prof. Frank N. McMurry and Prof. Edward C. Elliott" (116 pp.). This committee summarizes its discussion and reply in 29 statements (pp. 11–17), concluding with this statement: "The whole inquiry with reference to the teaching and supervision of elementary schools is a set of opinions backed by guesses and assumptions."

NEWBURGH, N. Y.

In June, 1913, the department of surveys and exhibits of the Russell Sage Foundation made its "Report of limited investigations of social conditions in Newburgh, N. Y." These were undertaken at the request of the citizens and conducted under the general direction of Zenas L. Potter. Nine features of the civic life and organization were studied as follows: Public schools, public health, housing, delinquency, public library, recreation, charities, industrial conditions, and municipal administration. In the report (104 pp.) the section on public schools comprises 16 pages (5–20). As the purpose of the general survey was constructive, the attention given to the schools sought to find as much good as possible. The opportunities for improvement in the schools were found to be as follows:

1. Improvement of the physical provisions for children in the way of lighting, air space, ventilation, cloak rooms, toilet facilities, and fire protection in old buildings.
2. Placing the detailed work of school administration more largely in the hands of the superintendent.
3. More frequent and adequate advising with the teachers regarding textbooks, changes in the curriculum, daily and term programs, etc., and at the same time, more thorough oversight of their work.
4. Increasing teachers' salaries, and adopting better methods for their selection and promotion, and for studying and improving their efficiency.
5. Making continuous studies of school efficiency for the purpose of locating and correcting weaknesses in the system.
6. Making special provision for mentally and physically abnormal children.
7. Establishing evening schools for foreigners and others who need special opportunities.
8. Greater provision for the physical training of children.
9. Opening school buildings out of school hours for wider civic and social uses.

The study, while confessedly limited, uses to advantage the comparative method of presenting certain features of the Newburgh schools with those of cities of approximately the same size.

GRAFTON, W. VA.

At the request of the board of education of Grafton, W. Va., a study of its schools and their supervision was made by Prof. J. N. Deahl, of West Virginia University, Supt. Joseph Rosier, of the Fairmont city schools, and Supt. Otis G. Wilson, of the Elkins city schools. The arrangement for the survey was made in April and the report was presented June 14, 1913. The report (29 pp.) was published as "The report of the survey of the Grafton city schools, by the West Virginia State department of free schools." The aim of the survey was suggestive rather than final with respect to utilizing the school funds in such a way as to provide for the city's needs to the best advantage.

The points studied included the following: The educational needs of the community from an industrial standpoint; the profes-

sional training and equipment of the teachers in service; the course of study followed in the schools; the methods of teaching; the possibilities of consolidation of departments and grades; the assignment of teachers and size of class; high-school equipment; current expenses; and the purchase of supplies.

This study of schools is especially interesting because it was focused on local needs; as in the Bridgeport study, emphasis was placed on the industrial needs of the community. In addition to recommending the cooperative industrial courses and the formation of night classes for the children employed in factories, the results of the study suggested that the organization of grades below the high school be modified to make the average size class per teacher between 30 and 40 pupils. The economy thus practiced would provide for the addition of instruction in manual training and domestic science. It was also found that too much time was given to the formal study of arithmetic, geography, nature study, history, and physiology. The following time allotments in the sixth and seventh grades were suggested:

1. Language (including reading, writing, spelling, composition, English grammar, and literature), one-fourth.
2. Mathematics (including arithmetic, oral and mental), one-eighth.
3. Elementary science (including nature study, physiology, hygiene, and geography), three-sixteenths.
4. History (including civil government, biography, and history proper), one-eighth.
5. Miscellaneous exercises (including music, drawing, industrial training, physical exercises, and recesses for games), five-sixteenths.

The high-school situation leads to the following recommendations:

1. Of the 16 units necessary for graduation, English should be required. Beyond this there should be only a reasonable grouping of studies, such as two majors of not fewer than three units each and three minors of not fewer than two units each.
2. In English the amount of technical grammar and language study should be reduced and the history of literature should be omitted except for a reasonable understanding of the selections studied by the pupils.
3. In mathematics a more modern text should be used in algebra and a briefer text in geometry. Plane geometry should doubtless be offered for those in the high school who desire it. In the eighth grade the elements of algebra without a textbook should be taught in connection with the arithmetic. This can be done so as to improve the latter and serve as a basis for further study of mathematics in the high schools.
4. The commercial studies should be bookkeeping, shorthand, and typewriting. A minimum speed test should be fixed in stenography for those who take it. Sophomore standing should be required for admission to these studies.
5. The high school should offer mechanical drawing, for which preparation should be made in the grades with free-hand drawing.
6. Home economics for girls (including domestic science, etc.) and manual training for boys (consisting of wood and metal work) should be provided for in the high school.
7. The city has an opportunity to do cooperative work of shop and school, thus opening the possibilities of secondary education to many boys who are now not receiving this benefit.
8. There are both educational advantages and economy in furnishing free textbooks.

UPPER PENINSULA, MICH.

An early instance of a cooperative school survey is to be found in the report of the bureau of research of the Upper Peninsula (Mich.) Educational Association, presented September 1, 1913. By resolution on October 4, 1912, the association established a bureau of research, to consist of a committee of five and a permanent secretary, who is Prof. Gilbert L. Brown, Northern State Normal, Marquette, Mich. President James H. Kaye, of the same normal school, was made chairman. The committee and secretary serve without pay, but an appropriation of $200 was made to meet necessary printing, postage, and other expenses. The resolution directed—

That the work of the bureau for the ensuing year be to make an educational survey of the Upper Peninsula to discover the problems, with a view to solving these problems.

Speaking generally, the teachers, superintendents, and commissioners cooperated admirably with the bureau in making the survey; 1,412 teachers, 24 superintendents, and 7 commissioners reported. Although only 7 commissioners returned their special reports, complete or partial returns were received from 12 of the 15 counties, exclusive of cities and villages.

The bureau experienced considerable difficulty in studying the reports received from some of the teachers, because of omissions or inaccuracies.

The report (48 pp.) is presented in three parts: Rural schools; city schools; high schools. The topics of Part I are: Preparation of the teacher; distribution of pupils per teacher; the distribution of the pupils of the rural schools among the grades; nationality; equipment and method; manual subjects in the rural schools. The topics of Part II are: Preparation of the teacher; the number of pupils per teacher; relative amount of time devoted to the different groups of subjects; subject matter in the elementary grades; equipment and method; nationalities; manual subjects in city and village schools; some of the newer problems in education. Part III presents: Requirements for high-school graduation and length of service of teachers. It is found that the average length of time men and women follow the profession of teaching in the northern Peninsula is seven years; the period is considerably greater in the cities and villages than in the rural districts.

Although suggestions are offered for the possible solution of a few of the more important problems, no definite recommendations are made. Among these suggestions are the following:

The greatest need of the rural schools is such an organization into a system as will make supervision effective.

The minimum preparation of the teachers should be two years in addition to high-school graduation.

City and rural schools alike need to examine the course of study more critically and eliminate all that will not have a vital place in the life of the child.

English should be taught through a utilization of all school subjects as a basis, rather than through literature.

Greater emphasis in geography, arithmetic, physics, and nature study should be placed on actual processes and observation.

The Upper Peninsula has accomplished but very little in "the socialization of the community through the school as a center," and wider use of the school plant is suggested.

The committee recommended that this report be followed up by a study of "the educational systems of the Upper Peninsula from the economic and social standpoints."

PORTLAND, OREG.

On November 1, 1913, there was submitted to the taxpayers' committee the report of the survey of the public school system of School District No. 1, Multnomah County, Oreg. (city of Portland). The study was authorized at the regular annual meeting of the voters of the district held on December 27, 1912. The aim and scope of the investigation appear in a preamble of the resolution appropriating $7,500 to meet the expenses of the investigation:

It is of the utmost importance that the public schools should be kept at the highest point of efficiency, [and] it is hereby declared to be the sense of this meeting that a full and complete survey be made of the public school system of this district, comprising:

1. The location, type, character, and condition of existing schoolhouses, and the estimated cost and type of future buildings;
2. Of the organization and methods of administration;
3. Of the form and manner of instruction;
4. The courses of study and the quality of the textbooks;
5. The extent and need of playgrounds and gymnasiums;
6. The development of domestic science, manual training, trade, agricultural, and horticultural schools;
7. The salaries of teachers and other employees;
8. The method and system of accounting;
9. The form of organization and the examination of the school laws of the State as applied in this district;
10. Of the average cost per pupil in comparison with other cities; and
11. Of the scientific method of raising the required revenue, either by direct taxation or the issuance of bonds, or both.

The survey staff was organized by the director, each member studying the topics named herewith:

Director Ellwood P. Cubberley, professor of education, Leland Stanford Junior University—Organization, administration, teaching force, costs; Fletcher B. Dresslar, professor of education, Peabody College for Teachers—Schoolhouse construction, sanitation; Edward C. Elliott, professor of education, University of Wisconsin—Attendance, census reports; J. H. Francis, superintendent of schools, Los Angeles—Vocational and special education; Frank E. Spaulding, superintendent of schools, Newton, Mass.—Courses of instruction; Lewis M. Terman, associate professor of education, Leland Stanford Junior University—Health supervision, physical training; William R. Tanner, graduate student, Leland Stanford Junior University, assistant for statistical work.

The field work conducted by the different members of the survey staff and under the constant direction of the director extended from April 6 until the first week in June, 1913. The formulation of the report occupied the months of June and July, the letter of transmissal to the chairman of the taxpayers' committee bearing date August 20, 1913.

The report is presented precisely as it came from the authors, the understanding from the first having been that it would be submitted without editing, adding, or suppressing.

In view of the time limit which made it impossible to visit every school and every teacher, the material was gathered chiefly by a study of "selected schools, typical of the different educational conditions found," or, "of type forms of instruction." The aim of the report was in no sense critical.

On the contrary, we have tried, instead, to outline a constructive program for the improvement and development of your school system, and have used criticisms only as a basis upon which to build. Such criticisms as are made, too, it is hoped will not be taken as personal by anyone, as they describe a condition rather than individuals. In particular we do not wish the report to be taken in any sense as a personal criticism of the outgoing superintendent or of the board of school directors, as we feel that the city owes much to the very faithful services of both. Your school system, despite its defects, is still above the average in worth.

The report (317 pp.) covers the following topics, arranged in the parts and chapters indicated:

PART I. ORGANIZATION AND ADMINISTRATION.

Ch. 1. The legal organization of the Portland school district.
2. The administrative organization of the Portland school district.
3. The system of supervision.
4. The selection and tenure of teachers.
5. The salaries of teachers.

PART II. INSTRUCTIONAL NEEDS.

6. The social and economic position of Portland.
7. The educational needs of such a city.
8. The present system of elementary and secondary instruction. (Spaulding.)
9. Outline of an educational program adapted to local educational needs. (Spaulding.)
10. The present offering of the school district in vocational studies, with suggestions for improvements. (Francis.)
11. Needed reorganizations and expansions of the school system. (Francis.)

PART III. BUILDINGS AND HEALTH.

12. The building and sites problem.
13. The school plant. (Dresslar.)
14. Medical inspection; hygiene teaching; physical training; special schools for defectives. (Terman.)

PART IV. ATTENDANCE; RECORDS; COSTS.

15. Census and attendance. (Elliott.)
16. Records and reports. (Elliott.)
17. Costs of the system of education.

(Where the author is not indicated, the writing of several chapters was done by the director of the survey.)

The report concludes with an appendix on a suggested law for the management of the Portland school district; 32 tables and 11 figures aid in the presentation of the material.

Because of its remarkable growth, Portland offers exceptional opportunities for bringing to light interesting data respecting the situation in city school systems as they occur in the newer as contrasted with the older cities in the United States. The comparative method employed places Portland in a group of 37 cities whose range of population extended from 100,253 to 347,469 in 1910, Portland being the twenty-third in rank, with a population of 207,214. The estimate of the population shows Portland to have a preponderance of males and of unmarried people. It ranks second in the first instance and thirty-sixth in the second. It has the lowest percentage of children in the population, ranking thirty-seventh of all the cities. In the matter of assessed and real wealth per capita, it ranks third from the top of the list. In the real rate of taxation for the maintenance of all city departments, including schools, it ranks second from the bottom of the list. It ranks nineteenth in the proportion of its city expenditure for education, which is $4.29 per capita of the total population. It ranks thirty-sixth in the cost for schools for each person in the total population 15 years of age or over, the amount being $5.28; and thirty-first in the cost for schools for each adult male, the amount being $10. With this unusually favorable showing from the financial point of view, Portland is in a position to maintain a more efficient system of education than was found by the survey staff.

The findings and recommendations are stated in final form in the publication "The suggested law for the management of the school district." Several of the chapters, such as 7, 9, and 11, are extended suggestions detailing at length all the features of what Portland might undertake. In other phases of the report, findings and recommendations are stated in detail, as "The 12 good rules of action on the selection of teachers" and "The 10 right principles of action on the tenure of teachers," in chapter 3; and "The suggested plan for fixing the salary for teachers on a basis of merit and efficiency," in chapter 5.

The chief characteristics of the present system of elementary and secondary education are found to be those of—

a rigidly prescribed mechanical system of instruction, organization, and administration, poorly adapted both to the needs of the children and youth to be educated, and to the community to be provided with efficiently trained service. This mechanical system shows itself universally in the course of study, in the scheme of promotional examination, in the spirit and method of instruction, in the classrooms, in the attitude of principals, teachers, and pupils in the grammar grades.

The following recommendations are made for a program adapted to local needs:

An adequate educational program for the community must be based on the individual needs of the boys and girls to be educated, and the community needs for service.

Such a program does not call for individual instruction to any considerable extent; it does call for the grouping of pupils into schools and classes in accordance with similarity of needs.

Seven factors must be considered in determining adequate grouping of pupils for instruction: Maturity, most readily but only roughly indicated by age; knowledge and ability to learn and to do; probable time to be devoted to schooling; natural capacity and interest; command of the English language; marked defects, abnormalities and subnormalities, physical and mental; and sex.

The significance of age: Children under 6 are educable, and suitable provision should be made for them; children of a greater age range than 3 or 4 years can not be advantageously instructed in classes together (and) 10 per cent of the pupils in the elementary grades in Portland need reclassification on account of age alone; "over-age" is the resultant of one or more of a large number of diverse causes; all over-age pupils should be studied and suitable treatment applied; it is still more important to anticipate and prevent the development of over age pupils.

As all public instruction should be designed to fit the recipient of it for largest usefulness, the time available for such instruction must be an important factor in determining what that instruction shall be.

Ignorance of the English language is a handicap that calls for separate classification and special instruction.

Markedly abnormal and subnormal children should be segregated, both in their own interest and in the interest of normal children.

The school population falls into four large fairly distinct groups, best represented under the names of the types of education best suited to the respective group needs: The kindergarten group; the elementary group; the intermediate group; and the secondary group.

Courses of study must change constantly to meet the ever-changing needs of pupils and to fit for the ever-varying service that society demands.

Promotion must be based not on what a pupil has learned but on what he needs to learn.

In vocational and practical education arts the following changes are recommended:

Primary manual arts should be introduced into the first, second, and third grades, and the work in manual training in the upper grades made much less formal.

Cooking should be introduced in the sixth, not later than the seventh, grade.

The elementary course in sewing should be modified to include more garment making and less exercise work.

The work in music and the training of the powers of expression need much amplification.

The board of school directors should assume full financial and educational responsibility for school gardening and place the work under an efficient supervisor, with sufficient help to carry it out.

Five or more intermediate schools should be organized to cover the seventh, eighth, and ninth grade work.

If the intermediate school plan is not adopted, freehand drawing in the seventh and eighth grades should specialize, to meet the needs of girls, in costume designing, home decorating and furnishing, pottery, and leather and metal work; and mechanical drawing should be offered to boys. The drawing in the high schools needs redirection and additional facilities for work.

Vocational work for girls should receive a much greater expenditure of time, thought, and money than it now does.

A vocational-guidance director should be appointed.

The commercial courses in the high schools need reorganizing and in particular need to be much more closely connected with the business life of the city.

There should be a first-class agricultural high school, well provided for practical instruction.

The Portland School of Trades should be merged into a technical high school, retaining the trade courses.

The needed reorganizations and expansions of the school system are specified as follows:

1. That the school system be reorganized, to secure greater educational efficiency, into the following units: Kindergarten, one year; elementary schools, six years; intermediate schools, three years; and high schools, five years (three or four years now; five ultimately). This can be made a truly American system, fitted to meet the social, professional, industrial, and commercial needs of American boys and girls.

2. That ungraded rooms should be established in connection with each elementary school of any size, to afford the necessary provision for the exceptional children in the school.

3. Four or five special or truant schools for boys, irregular in their studies, habits, and deportment, should be established, graduating their boys into a central special manual school, from which they should be admitted to one of the high schools.

4. The vacation-school system should be gradually enlarged and extended, and changed somewhat in type. The playgrounds should be closely connected with such school work.

5. The night-school work should be enlarged, enriched, and materially extended in scope, and its purpose in part changed.

6. The school day should be extended, and Saturday forenoon included for vocational work in grammar schools, carrying the seventh and eighth grades, and in the intermediate schools and in the high schools.

7. Two special art schools, one for intermediate and one for high-school pupils, should be established.

8. There should be established at least two, and gradually a number more, of neighborhood schools, to meet the peculiar needs of certain centers within the city.

9. A school for the instruction of janitors should be added, standards for the work established, and a wage scale based on efficiency established.

Medical inspection should be placed under the supervision of a full-time physician as chief director, aided by two full-time and two half-time physicians, one full-time dentist, and seven additional full-time nurses. Annual tests of vision and hearing should be made. Playgrounds should be increased in number and size, and a few open-air schools should be established at once. Mentally peculiar and defective children should be studied by psychologists. The more important aspects of the hygiene of instruction should receive attention.

MINNEAPOLIS, MINN.

Because of its specific recommendations which in part suggest a reorganization of the schools, mention should be made of "A vocational survey of Minneapolis" which was published in 1913 by the Minneapolis Teachers' Club. The commission of 18 "persons well known in the city, and representatives of differing interests," eventually depended upon the Minneapolis Teachers' Club and the board of directors of Unity House for the completion of the inquiry. The completeness and accuracy of the report are regarded as due to the work of Misses Lydia Herrick and Emily Child.

The report (90 pages) includes 13 tables and other statistical material presenting school and industrial data concerning a group of 352 children between the ages of 14 and 16 years who left school in 1907 or 1908.

The recommendations were as follows:

1. That as rapidly as would be economical the schools be organized on the "six-three-and-three" plan, beginning differentiated courses in the B7 grade. These courses should follow three broad lines leading: (1) Toward the academic courses in high schools; (2) toward the commercial courses or directly to business; and (3) toward manual training in high school, or directly to manufacturing and mechanical pursuits.

2. That preparation for the trades can be best and most economically given in continuation schools, in which the instruction shall be closely related to working conditions, while the necessary skill shall be gained in actual work under the usual commercial conditions.

3. That the membership of the Thomas Arnold School be enlarged to include all boys who have reached the age of 15 and have not yet reached the seventh grade. And that a similar school be organized for girls.

4. That a department of vocational guidance be organized. It should attempt the following work: First, a survey of the business and industries of the city, giving accurate and complete information regarding the wages, hours of labor, chances of promotion, sanitation, and moral conditions of each occupation. Second, a survey to indicate clearly the value of the present courses of instruction in high school, not only the industrial and commercial courses, but every course in our schools; in this should be included a comparison with the product of business colleges and other schools, and the opinions of employers regarding the qualifications of the young persons in their employ. Third, vocational guidance, which shall assist a child with his parent to find his proper place at work; establish a bureau of information for employers and those seeking employment; at its discretion, within the law, issue all labor permits and have general oversight of the boys and girls at work.

5. That a set of records be kept of each pupil, giving a complete account of his home conditions, his physical condition, and his mental and emotional characteristics, upon which information may be based a judgment concerning his future occupation.

6. That as an adjunct to the board of education an advisory commission of 15 members, composed of employees, employers, and educators be established, whose duty it shall be to report changes in the demands of business and industry, and to advise modifications of the course of study to meet these new demands.

7. That a law should be enacted, making it mandatory that a boy shall be either in school or at work up to his eighteenth year, and that the department of vocational guidance be charged with the duty of enforcing such a provision.

8. That a school census be taken of the city, the purpose being that all children of school age shall be in school, and that the board of education may have the benefit of this information in planning for the future of the city's school system.

9. That an age-grade census of all pupils in school be taken, to determine where retardation is taking place; this should be followed by a study of conditions in order to remove the causes of retardation.

STATE OF OHIO.

The most extensive school survey conducted on the cooperative plan is that which was reported in January, 1914, to the governor of Ohio by the Ohio State school survey commission. On February

26, 1913, the General Assembly of Ohio passed an act authorizing the governor—

to appoint a commission of three members to make a survey of the public schools, the normal schools, and the agricultural schools of the State, and the State administration of the same, to determine with what efficiency they are being conducted, and to report to the governor with recommendations. Such report shall be transmitted by the governor to the present General Assembly of Ohio.

An appropriation of $10,000 was made to meet the necessary expenses of the members of this unpaid commission which included M. Edith Campbell, William L. Allendorf, and Oliver J. Thatcher, chairman. The commission secured (without cost to the State) Horace L. Brittain, of the New York training school for public service of the Municipal Research Bureau, as director of the survey. The commission began its work March 12, 1913, and presented its report the following January.

The extent of the cooperation in the survey is indicated by the fact that—

An intensive study of 659 rural village schools in 88 counties and an extensive study of 9,000 schoolrooms in 395 school systems [were] participated in by 44 professors in professional schools for the training of teachers and 116 students in these institutions, most of whom had had experience in rural school teaching, 395 superintendents of schools, and other school men and women, and 9,000 teachers who supplied information to the commission.

In addition many persons—

participated in conferences and round-table discussions in which the constructive suggestions of the commission were submitted to close criticism.

The cooperative character of the enterprise is still further indicated by the 12 forms used in the field survey of schools and a number of questionnaires sent to individuals, such as auditors, superintendents of schools, and teachers at teachers' institutes. (Appendix B, pp. 306–352.)

The topics included in the survey as presented in the report (352 pp.) and treated in the 22 chapters, most of which close with "constructive suggestions," were as follows:

Administration of the office of State superintendent; school supervision; certification of teachers; the academic training, experience, and tenure of office of teachers now in service; the professional training of teachers; classroom instruction; equipment of elementary schools; the physical plant; the care of the health of pupils; records and reports; slow progress, over-age, and nonpromotion; township, village, and special district high schools; living conditions of teacher; outside cooperation with rural schools; general community conditions; local administration of school law; special and village districts compared with township districts from which they are cut; rural boards of education; consolidation and centralization of schools; State aid to common schools; and standardization of schools rather than of pupils and students.

The report concludes with the following résumé:

The work of the office of the State superintendent of public instruction is hampered by lack of room, necessary equipment, and adequate inspectorial and clerical force. The superintendent himself is forced to devote a large part of his time to office detail.

The department should be provided at once with more space (it now has but three rooms, two of these very small), more equipment for filing and preserving records, and more office force, so that the State superintendent of public instruction can devote his time to larger matters of policy.

Many rural districts and some village districts are inadequately supervised.

A system of State-wide and as nearly as possible full-time supervision should be inaugurated, providing for combined county and district supervision applying to all school districts outside the cities.

The present method of certifying teachers is too cumbersome and puts a premium on ability to pass written examinations.

Many grades of certificates should be abolished and every candidate for teacher's license should be required to pass a classroom test.

Large numbers of teachers in rural, village, and small city districts have no professional training and even no academic training above the high school.

A State-aided system of teacher training in connection with first-grade high schools in rural and village districts should be established. Summer schools for teachers should be standardized and increased in number. Teachers' institutes, wherever retained, should be reorganized and strengthened.

Much good instruction was observed in all grades of schools, but in many and widely separated districts the need of careful supervision was very evident.

Many schools were deficient in necessary academic and hygienic equipment. This was not always due to lack of funds, as neighboring districts of similar financial standing often differed widely as to amount and character of equipment.

Many schools, particularly rural schools, are in insanitary condition. In many cases privies, especially in some township districts, are in a disgraceful condition. Ideal condition as to cleanliness in one district may exist side by side with exactly opposite conditions in a neighboring district.

All schools should be compelled to come up to a decent standard of cleanliness and academic and hygienic equipment.

Good examples of ventilation, heating, and lighting are found in all grades of schools, but undesirable conditions are widspread.

The salaries of teachers are inadequate in many schools, particularly in rural districts. Other living conditions are often not of a nature to tend toward length of service in the profession.

Outside cooperation with public schools is comparatively rare and except in the cities, the social use of buildings is infrequent, although there are some outstanding examples of social center work in rural communities.

A widespread revival of the use of school buildings as community meeting places is demanded in the interest of the social life of rural communities. Such a revival would go far toward, on the one hand solving the problem of retaining good teachers in rural districts, and on the other increasing the interest of patrons of rural schools.

Many rural boards of education are breaking school laws by non-enforcement of the compulsory-attendance law, by refusing to pay teachers for janitor service and attendance at institutes, and by maintaining school for less than 32 weeks per year.

Boards of education should be compelled to obey all State laws on pain of nonparticipation in State funds.

Too many exceedingly small schools are maintained in the State. Such schools are always expensive and in the main inefficient.

Consolidation and centralization should be encouraged whenever practicable. Wherever the one-room school is the most practicable—and this is often the case—it should be the best possible one-room school. A good one-room school may be made efficient and is always better than a poor or fair graded school.

No schools, except high schools, are effectively standardized.

All schools should be standardized, and the graduates of lower schools should be eligible for admission to a higher school without State examinations. Institutions should be standardized rather than students or pupils. All standardization should be concerned with the quality as well as with the quantity of work done, and the greatest freedom should be allowed each individual school to develop its individuality along the line of service to its community.

STATE OF VERMONT.

The report of "the first survey that has ever been made of all of the educational facilities in a State" was published February 15, 1914, by the Carnegie Foundation for the Advancement of Teaching, in "A Study of Education in Vermont" (Bulletin No. 7, Parts I and II, 214 pp.). This study was made at the request of the educational commission which was authorized by a joint resolution of the Legislature of Vermont November 19, 1912, as follows:

That a commission of nine persons, at least two of whom shall be experts in or engaged in educational work, shall be appointed by the governor to inquire into the entire educational system and condition of this State. This commission shall report at the earliest possible date on the several rights, duties, and obligations of the University of Vermont and State Agricultural College, Middlebury College, and Norwich University, with such recommendations as will prevent unnecessary duplication and consequent financial waste.

That as soon as practicable after reporting on the institutions of higher learning hereinbefore referred to, the said commission shall recommend, by bill or otherwise, such reorganization of our public elementary and secondary schools, in adjustment to the entire educational system of the State, as will promote the ends of unity, harmony, economy, and efficiency.

On February 24, 1913, the commission invited the Carnegie Foundation for the Advancement of Teaching to conduct the investigations. "Six months to a study in the field and an equal time to the examination and presentation of the records and suggestions" were given under the direction of President Henry S. Pritchett, by 12 members of the staff of the foundation and the following specialists who investigated the topics named:

Edward C. Elliott, University of Wisconsin—The normal schools and the State system of administration and expenditure; Milo B. Hillegas, Teachers' College, Columbia University—Elementary schools; William S. Learned, Harvard University—Secondary schools (the reports of the last two are signed by each, respectively, and these reports form "the backbone of the educational inquiry"); Edward H. Farrington, University of Wisconsin—The agricultural college; Nathaniel B. Potter, Columbia University—Medical school; George R. Olshausen, United States Bureau of Standards—The three engineering schools; Miss L. E. Stearnes, Wisconsin Free Library—Library facilities in relation to the public schools; and William Leslie, public accountant.—The scope of the system of accounts and financial statements.

The features of the study appear in the topical arrangement of the report, which is as follows:

PART I. METHODS AND RESULTS.

1. The reason for the inquiry; 2. The method of the inquiry; 3. Conclusions and recommendations.

PART II. DESCRIPTION AND DISCUSSION.

1. The State of Vermont; 2. The existing educational system; 3. The elementary schools; 4. The secondary schools; 5. The training of teachers; 6. Vocational schools; 7. Records and accounts; 8. The financial support of the public-school system; 9. The reorganization of the agencies for administration; 10. The Vermont colleges and their relations to the State; 11. The University of Vermont; 12. Middlebury College; 13. Norwich University; 14. The history of Vermont subsidies to higher education; 15. The outlook for higher education in Vermont; 16. Program of reorganization.

It was assumed that all conclusions, recommendations, and proposals for legislation belonged entirely to the educational commission and not to the individuals who were engaged in making the study. In the course of the presentation of the essential facts that were discovered, the study led to certain conclusions, which were resolved in the following recommendations:

1. The recognition by the State of the reorganization of elementary and secondary education, including vocational training, as its immediate and supreme duty.

2. The organization of the office of a commissioner of education upon a basis competent to furnish expert supervision for the public-school system. This involves a small lay board serving without salary, and salaries for educational experts of a character to secure the ablest men and women. The details of this organization are given in Section IX of Part II.

3. The problem of revision of the course of study, the establishment of agencies for training teachers, and other administrative details to be worked out by this board and its experts.

4. The State Agricultural College to receive a larger proportion of the generous annual appropriation to the State from the Federal Government and to be developed along lines calculated to make a fruitful connection between the agricultural college and the industries of farming, dairying, gardening, stock and poultry raising, and fruit culture.

5. Subsidies to higher education should cease, the [three] colleges being given a reasonable time in which to rearrange their budgets.

The report concludes with a suggested program of reorganization which defines general policies, measures for legislative enactment, the administrative policy of the State board of education as regards elementary, secondary, and vocational schools, and supervision, training, and certification of teachers.

PUBLIC SCHOOL 188B, MANHATTAN, NEW YORK CITY.

On February 21, 1914, the New York Bureau of Municipal Research published a 35-page bulletin containing typical extracts from a report made at the request of Principal Edward Mandel upon the administration and activities of his school for 2,500 boys, Public School 188B, Manhattan.

The data were secured during a 12-day study of this school by Mr. A. N. Farmer, of the training school for public service, aided by 12 students.

Each of the 59 rooms was visited at least twice; 45 hours were spent in actual inspection of classroom work, methods of discipline, and inspection; over 40 hours were spent in questioning the principal and teachers; 75 homes were visited; 25 boys were questioned in detail; 773 special language papers written by seventh and eighth grades were studied; stenographic reports of 18 recitations on all subjects were analyzed; test arithmetic questions were given to 1,480 pupils in grades 5A–8B. A two-day field study of the extra-curriculum activities of teachers was based on interviews with eight teachers and the principal.

Numerous diagrams, sketches, and other devices were used to present the findings, which are arranged under the following headings: How the school is governed; flexible grading and grouping; stretching an "inelastic" curriculum; testing classroom instruction; notes on typical recitations; spelling misfits; peculiar idioms in language papers; how reading was taught; how arithmetic was taught; one geography lesson; pupils needing attention because of nonpromotion or late entrance; conferences with teachers; parents' meetings; decorations; ungraded classes; extra-curriculum activities; athletics; clubs; after-school jobs for boys; what pupils want to be; home study; discipline; medical examination and treatment; suggestions for improving the physical conditions. The bulletin includes a statement by Principal Mandel for the General Education Board as to how his school used this report.

BUTTE, MONT.

That later surveys would benefit by the experiences of the earlier inquiries is a matter of normal expectancy. This improvement is noticeable in a few of the later studies mentioned above, and especially in the report of a survey of the school system of Butte, Mont., which was submitted to the board of school trustees June 2, 1914. On May 5, 1914, the board adopted the following resolution:

That a survey be made of the schools of school district No. 1, by Dr. George D. Strayer, of Teachers College, Columbia University, New York City; Dr. Ellwood Cubberley, head of the department of education, Leland Stanford University; and Dr. Frank P. Bachman, of New York City, and two assistants. Such survey to commence as soon as practicable, and there is hereby appropriated and set aside from the general fund of the said school district the sum of four thousand ($4,000) dollars to pay the expense of said survey and for the cost of a report from the said persons to the board of education as to the conditions of the said schools.

The two assistants associated with the commission were William T. Bawden, managing editor of Vocational Education,[1] and F. J. Kelly, director of the training school, State Normal College, Emporia, Kans.

[1] Now specialist in industrial education, U. S. Bureau of Education.

One of the interesting conditions of the inquiry, the time allowed for which was four weeks, was the following recommendation of the board's committee on teachers and school management:

> If such a survey is made of the Butte schools, we hereby resolve to publish the results in full and to abide by the recommendations of the experts, wherever possible.

At the beginning of the work of the commission it was also agreed:

> That it was the purpose of the survey to acquaint the board of school trustees and the citizens of Butte with the conditions as they exist in the public-school system, with respect to the school plant and its equipment, the methods of administration and supervision of the schools, the instruction and courses of study, the training, tenure, and present efficiency of the teaching corps, and the classification, progress, and achievements of children in the school system, together with such recommendations as might seem to them to be justified in the light of the facts which they might be able to collect or observations which they might make.

The method of procedure of the commission included conferences with the superintendent, the board of school trustees, and all teachers of the school system. Careful effort was made "not to express any opinion concerning any individual teacher or other employee of the board of school trustees."

Further interest of the public in the course of the survey was manifested in the invitation to the commission to attend meetings of the local labor council, the teachers' union, city parents' association, woman's club, and chamber of commerce. The main object of the survey was to suggest "possibilities for improving the opportunities of the children in the public schools of Butte."

Accordingly, all the schools in the city's jurisdiction, except in the rural section, were visited by one or more of the commission. The study is of special interest, because it brings forward an emphasis upon the teaching side of the system and makes definite contributions toward improvements in administrative details.

The report (163 pages, including appendix) covers the following topics:

Introduction.

Part I. The Instructional Problem.—1. The classification and progress of pupils. 2. The quality of instruction. 3. The courses of study. 4. The achievements of pupils. 5. Supervision of instruction. 6. Adaptation of the schools to community needs.

Part II. The Administrative Problem.—7. The administration of the schools. 8. Selection, training, tenure, and salaries of teachers. 9. School buildings and equipment. 10. Census, records, and reports. 11. Costs and financial records.

Summary, Conclusions, and Recommendations.

Tables and figures aid in presenting the data studied. The report is characterized by the list of eight record and report forms which are recommended for adoption by the system.

In the absence of adequate records, both financial and statistical, the commission found it impossible to state with any degree of accu-

racy the position the Butte schools occupy in comparison with other cities in the United States. Much time was spent in trying to work out such comparisons, but the effort was finally abandoned. With a population of 39,165 in 1910, it was found that only 28.5 per cent were of native parents, while 32.9 per cent were foreign born, and 37.3 per cent were native born with one or both parents foreign born, six-tenths of 1 per cent were negroes. The effects of a large number of non-English-speaking children upon the school system were noted by the commission. The predominant age in Butte is between 25 and 44 years; 15.1 per cent of the whole population is between the ages 5 and 14 years, as compared with 17.4 per cent for the United States.

> This relatively small proportion of children of school age * * * should enable Butte to provide much better educational advantages for its children than can be provided by the average city.

Owing to defects in the school census, it was found that only an approximation could be made of from 75 to 79 per cent of the children between the ages of 6 and 14 years and a few of other ages who were reached by the public schools.

In studying the quality of instruction (Ch. II), the commission fixed the following standards for judging the work of teachers in terms of the social efficiency aim of education. These standards specify "The degree to which certain qualities are developed in children which enable them to contribute to the common good."

These are as follows:

> 1. Sympathy or responsiveness to social needs. 2. Intelligence, or ability to think straight with respect to those issues which involve all members of the community. 3. The habit of acting for the common good.

It was found in the system as a whole that teaching had been overemphasizing drills as a classroom procedure. Instead of developing the abilities of children to express themselves and to think, the teaching had been altogether too much cramming of facts, further evidence of which was found in the nature and importance attached to the stated examinations.

Possibly the greatest need of the school system, from the standpoint of instruction, is to be found in a change in the nature of the examinations and in the work of the teachers which will result in an emphasis on thinking, rather than remembering.

The report is interesting on account of the attempt made to measure the achievements of pupils by an application of some of the more recent standards and scales in spelling, English composition, handwriting, and the fundamental operations in arithmetic. In spelling, the Ayres lists of 10 words each for the second to the eighth grades, inclusive, were utilized. The Ayres average for schools in 22 cities is 70 per cent. The Butte average is 80.3 per cent. These data fur-

nish "evidence of the efficient drill work done throughout the system." The Hillegas scale was used for the measurement of English compositions written by children in the fourth to eighth grade, inclusive. The results showed that in composition work the Butte children were low in comparison with certain classes in other parts of the country. It was found that "there is relatively little growth from one grade to the next, the median score being raised less than 2 points from the fourth to eighth grade."

The Thorndike scale for the measurement of handwriting was used in measuring the achievements of the pupils above the first grade. It was found that there is a "rather singular irregularity in the progress made, from grade to grade," there being a very wide range of abilities exhibited. The Courtis tests were used in the four fundamental operations and the Stone problems in reasoning for measuring the work in a number of classes selected at random from 5B to 8A classes. It was found that in comparison with median scores made by children in Detroit, Boston, and a group of smaller cities, the results in Butte in the fundamentals are very satisfactory. The Butte children are a little low in addition, about equal in subtraction, and high in multiplication and division. In the reasoning problems the results showed "a lack of clear thinking."

The recommendations are appropriately distributed throughout the report and among them may be mentioned the following:

1. To meet the problems of over age special classes and a summer elementary school should be established.

2. A reorganization of the courses of study and a change in the type of examination are recommended in order to decrease the number of nonpromotions.

3. Because of the overemphasis on drill work and the neglect of work involving thinking, more careful supervision and more adequate professional training should be secured.

4. There should be established an intermediate school of three years for children who have completed the sixth grade.

5. In order to adapt the schools to the community needs, the commission recommended that the following should be established: Kindergartens; special classes for non-English-speaking children as well as backward children; wider use of the school plant; greater opportunity for play and recreation, and more adequate health supervision.

6. To improve the state of inadequate professional training, a summer school should be opened in Butte for teachers, all of whom should be required to attend this school or some other recognized summer school and be paid a month's additional salary for such attendance; and also the maximum salary increases should be based upon the securing of additional professional training.

7. Various features of the school buildings and equipment are presented for improvement, including reference to the work of the janitors who should be given such training as will insure more satisfactory service.

8. Special forms, including school census book and card census-file report, attendance and scholarship, reports on attendance, and a standard financial report.

COST OF SURVEYS.

An educational survey project is at once confronted with the question of cost. In the absence of readily available information as to the outlays required in the above inquiries, Dr. Leonard P. Ayres, of the division of education, Russell Sage Foundation, has kindly furnished the following statement regarding the cost of about two-fifths of the surveys:

Montclair, N. J., $500; Baltimore, Md., $2,000; East Orange, N. J., $1,000; Bridgeport, Conn., $1,000; Waterbury, Conn., $126.89; New York City, from $95,000 to $125,000, depending on the inclusion or omission of different items; Greenwich, Conn., survey and exhibit, $2,500; Portland, Oreg., $7,500; State of Ohio, $10,000; State of Vermont, $10,000.

CHAPTER XXV.

AMERICAN CITIZENSHIP IN THE EDUCATIONAL SURVEYS.

WITH SPECIAL REFERENCE TO HIGH SCHOOLS.

By JAMES MAHONEY,

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CONTENTS.—Evaluation of the surveys—The spirit of American citizenship—The viewpoint of the Republic as revealed in the surveys—American spirit in high-school administration and program of studies—The high-school problems—The balance sheet.

EVALUATION OF THE SURVEYS.[1]

It is more than a coincidence that the scientific evaluation of railroads and scientific accountancy, as well as educational surveying, should have made extraordinary progress in the last 10 years. They all have a common origin. Indifference and the pride of waste are giving way to thought for the future and a determination to know just how we stand. This surely is a wholesome thing. Keen vision and searching analysis are probing every phase of public life. The spirit of America is awake. With renewed conviction of her mission in the world, she looks for facts, and seeks to square her conduct with her conscience.

Of all the fields of public service, of most concern to her is the state and conduct of her schools. In their efficiency lies her destiny. And of all the schools, the high schools, for the past five years, have been of keenest interest—subject of highest hope and of sharpest censure; eldest of all the schools, yet, with new life, growing by leaps and bounds, changing their plan and purpose, and seeking greater scope for action. What must she think of them?

The thought has been anticipated; here are scores of surveys ready to her hand; for a decade trained investigators have been "taking stock," and casting school accounts. Widely scattered towns and rural districts, great cities and entire States, have felt

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[1] There is some difference of opinion as to what a "survey" is, but for the purposes of this chapter the following definition has been adopted:

An educational survey is a formal attempt, with a constructive purpose, to ascertain essential facts in regard to a school, a system of schools, or a series of systems.

"Strict construction" might reduce the list, but a fair interpretation will admit that even the slighter surveys have made some contribution to our knowledge of school conditions, and all have been of distinct local service. See bibliography, p. 592.

the surveyor's probe. The aggregate should give some adequate general notion of the value of the schools.

The slightest examination will reveal, however, that these surveys are not only of very unequal value, but that each was made to solve a distinctly local and special problem. How can the Nation find in them material for her balance sheet? How appraise their findings? How cast equality between the debits and the credits? What test, what common standard can be found?

That standard must be found in the law of growth in organic life: whatever brings an increment to the vital principle within is of value, and to that degree; all else is waste, and tends to disease and death. What, then, is the vital principle of the Republic? Fortunately for us, it is clear to all men; it has been dominant in her history; it is basic in her Constitution and her law.

I. She asserts the supreme value of every human personality, and therefore guarantees the right of every citizen to "life, liberty, and the pursuit of happiness."

II. To secure that right, she grants him a full share in the exercise of sovereignty.

III. In order that each citizen may understand the meaning of that imperial right, and its necessary dangers from human selfishness, passion, and ignorance, and exercise the right with a just regard for the equal rights of all, she insists on universal education as the condition of her own existence—the first nation to stake her existence on a single principle, and that, a spiritual conception of humanity, a sovereign standard.

Hence the primal need of constructive civic education, producing in the youth thoughts and habits that will secure—

A. Individual power of self-support, self-reliance, self-control;

B. Habitual cooperation for social integrity and common welfare;

C. Love and the spirit of sacrifice for the Republic, to secure her power and honor.

These qualities concenter in the ideals of home, of country, and (Washington and Lincoln said) of God; and fuse into unity in the spirit of American citizenship.

CITIZENSHIP AND THE SURVEYS.

What say the surveys?

I. Is this spirit embodied in the general aim of all high-school work?

II. Does it inspire all activities of the entire school staff (*a*) In the business administration of the schools? (*b*) In the teaching and supervising of the schools?

III. Are the studies and courses used as means of its realization?

IV. Are adequate civic habits the purpose and result of it all?

Have the surveyors had this civic point of view, or have their eyes been fixed on purely local needs and purposes?

No graph can with fairness be attempted, because of the variation in aim and the wide range in quality exhibited in the various surveys; but the citations will in general reveal the common trend; and further, the failure of citations will reveal the limitations. Where the surveys fail, the special authors and the experience of teachers—especially of the National Education Association in its plan for reorganization—may serve.

THE VIEWPOINT OF THE REPUBLIC, AS REVEALED IN THE SURVEYS.

It (secondary education) should lift the general level of intelligence, character, and efficiency—it aims to reach the "masses" as well as the "classes."—New York, Vol. I, 159.[1]

Democracy is the organic expression of high average intelligence and character.—Syracuse, 19.

Should we be astonished at incompetency and corruption, at bossism and machine politics in American local government * * * Should there not be * * * systematic instruction in the essential principles of democracy?—Ibid., 25.

A mere intellectual understanding of what good government requires is of slight concern to a corrupt or wholly selfish man; as is indicated by the same survey, the need is for correct *habits* of doing duties, in private and in public life.—Syracuse, 20.

A high degree of intelligence, patriotism, integrity, and morality on the part of every voter * * * is necessary to insure continuance of that government and the prosperity and happiness of the people.—North Dakota, 21.

Specific education for citizenship is needed.—Chicago (1894), 176.

AMERICAN SPIRIT IN HIGH-SCHOOL ADMINISTRATION AND PROGRAM OF STUDIES.

The school board.—Does the school board, which directly represents the people, exercise its authority so that the spirit of American citizenship is fostered in the high schools and the needs of American life and American citizenship are subserved; and does it render a full account of its work to the people, so that they may be progressively informed regarding school questions, and may be the better prepared for the maintenance of true school interests? It is surely important that the source of authority in the schools should truly represent the spirit of American citizenship, in service and responsibility.

A note of warning is sounded regarding danger from selfish combinations to control the schools.—(Baltimore, 8, 9; Sacramento, 24; Portland, 16.)

How can these dangers be avoided? How can the right kind of board be secured? Should the board be appointed or elected? Should it be large or small? Education and politics can not be mixed; but the responsibility is on the people. Many authorities

[1] For complete references, see Bibliography, p. 592.

prove that the board should be small, independent, elected at large, and should serve without pay.—(Sacramento, 18–24; Chicago, xiii.)

This inquiry has reemphasized that the public school is a great engine of democracy and as such should not be dominated by any one class.—New York, Vol. I, 17.

The way to get a higher type of school committeemen is to throw all administrative duties and detail work upon the superintendent, and thereby make it possible for the board to do all its legitimate business at a meeting lasting only an hour and a half, once in two weeks.—Portland, 16.

This leaves the board free alike from the strong personal pulls and influences and the petty details of school administration, with time to devote to the larger problems of its work.—Ibid, 25.

The question at once arises: "Why not abolish the board, and leave all the problems to the superintendent?" If he, as an expert, is needed to solve the smaller problems, why should not he, with greater reason, be given authority to solve the larger problems? But consider this: If the school board members, independent citizens of the community, can not escape politics, petty or great, how can one man, a subordinate, endowed with authority over the fortunes of many thousands of people and vast financial interests, escape politics? Is it, in fact, good American doctrine to try to escape "politics" in American life? Should not "politics" be met and conquered in the open? Is not the problem one of putting the burden more directly upon the people, and then, by reports and discussion of results, leading them to a fuller understanding of the facts, and a sense of their duties and responsibilities in the schools? It can not be that the surveyors intend that the superintendent should build up an independent "machine," for Portland adds (21): "Whenever the board comes to feel that he (the superintendent) does not come up to the position which has been created, they should call for his resignation."

But how can the members of the board do their duty in behalf of the people, and in behalf of the superintendent, and the schools as well, if they simply have a *feeling* in the matter? Why should they not know, and how can they know, in regard to all essential acts of the superintendent, unless they possess first-hand information in regard to all material facts on which he bases his judgment? And how can they obtain such knowledge about a great school system unless they spend more than an hour and a half once in two weeks? Why should not a man who is worthy of representing the people take time to become familiar with the data upon which the superintendent bases his judgment in all essential matters; spend some time in seeing the schools with his own eyes; encourage his fellow-citizens, the parents, to do likewise, so that all may have a clearer understanding of how things actually are in the schools? Public knowledge

and public opinion are wholesome in every phase of American life; they are the safeguards of public service.

Similar views, regarding the need of leaving administrative matters to the superintendent, are expressed by Springfield, 13; Upper Peninsula, Michigan (1914), 39; Boston Finance Commission (1911–1913); Newburgh, 10; Philadelphia, 59; East Orange, 62; San Mateo, 23; New York, Vol. III, 195.

The initiative, in appointments of teachers, should be left with the superintendent; but the board has the right to disapprove.—Bridgeport, 11, 12.

The superintendent should be the thinking and constructive leader of the schools, and failure to be that is sufficient ground for his removal.—Butte, 113.

The chief duty of the board is to appoint a competent staff and then hold it responsible for technical and executive functions, and it learns about the performance of these functions by receiving reports from the staff. It should discuss and criticise those reports, and should render a clear and accurate report to the people.—New York, Vol. I, 191.

The New York final report goes further and asserts that the great questions of educational policy should not be *solely* solved by the so-called educational expert. These are questions about which the opinions of specialists in other fields and of the laymen are of great value. They are, furthermore, questions that should be solved in the light of the public opinion, existing among the people of the city, which is represented by the board of education. (New York, Vol. I, 191; Vol. III, 31.)

Perhaps it is the belief that the people of municipalities do not take pains to consider the qualifications of school-board members to attend to such duties that leads Waterbury to suggest the questions which should be answered in regard to school-board candidates, as to whether they have the requisite interest, intelligence, and ability to attend to such important affairs.—(Waterbury, 13.)

Upper Peninsula, Michigan, adds that they should have children attending the schools; that they should be broad-minded and conscientious. These statements show confidence in the people and a belief that they can be educated to an appreciation of the needs of the schools.

Lincoln assumed that the people were fundamentally honest and capable of intelligent action on all important matters. That the people can be so educated and can understand is assumed by Prof. Hanus in his article on "Significance of school surveys."[1] In regard to the efficiency of school boards, he asks this general question: "Is there complete accountability of the board of education to the people for the work done and the money expended under its direction? That is, is there (*a*) a system of clear, adequate incontestable and accessible records of the educational results, progressively

[1] School Review Monographs, No. 5.

achieved (furnished by the staff to the approval of the board) for the information of the staff, the board, and the people; and (*b*) a similar system of records covering the business affairs and financial accounts for the same purpose?"

The people should choose a few high-class men for the board, who will call open meetings and help the various elements of the people to express their needs and formulate their wishes.—South Bend, 208.

Since superintendents are put in charge of the entire system of schools in the larger towns and cities of the country, it is essential that the school boards should know how they exercise their power, and whether it is in accordance with fundamental American principles.

A. BUSINESS ADMINISTRATION.

School boards, superintendents, business agents, architects, etc.—While the purpose of schools is to afford instruction for the children, it is obvious that there is a strictly business side to education. Buildings have to be constructed, equipped, cared for; grounds have to be provided, salaries of teachers and other officials looked out for; but here, as in the department of scholastic administration, we must strive to ascertain whether all is planned to facilitate training for citizenship; whether all the work is done with a spirit of economy and efficiency, from the standpoint of society and of city, State, and Nation. Many of the surveys were organized especially to ascertain the answers to these questions, and nearly all the surveys have given some contribution to the business questions of education. They have considered:

Financial management, judged by a double scale: (1) Local, interdepartmental comparisons, i. e., in relation to wealth, taxation, population, etc.; (2) interurban and inter-State comparisons, all interpreted from the standpoint of needs and actual results; the elimination of waste; and the fixing of responsibility.—(Portland, 57; Vermont, 140 et seq.; 2d Boise, 15; Newton (1912, 1913); Springfield, 92; Sacramento, 25; Grafton, 27; Boston Finance Com., 100, 129; Comparative Study of Public School Systems in 48 States, entire; San Francisco, 8 et seq.; Newburgh, 97; Bridgeport, 12 et seq.; Philadelphia, 56.)

School buildings and equipment.—School buildings—(1) Location; (2) cost; (3) construction; (4) interior arrangement; (5) equipment; (6) grounds; (7) care; all interpreted from the standpoint of school and civic use.

At the present time our Kansas communities are spending relatively too much money on material equipment, and neglecting to secure the type of teachers who will render the grade of service needed.—Survey of Kansas High Schools, 38.

The site selected for a school building should be a safe distance from noisy factories, lumber mills, or any similar disturbances.—Portland, 229.

The high school is miserably housed.—Montclair, 8.

The large expenditures for the school plant, warranted.—Newton (1910), 33.

Nine schools have reported as having no apparatus.—Ohio, 17; 8 Rural School, Maryland, 6.

Schoolroom decoration.—Sufficient attention has not been given to this topic in the past. Slight thought is needed to recognize the fact that not only may the school buildings be made pleasanter places for pupils and teachers by the proper decoration of the rooms, but the decorations themselves may be utilized for silent inspiration for social and patriotic ideals.—(East Orange, 19, 20; Ohio, 161; Rural Illinois, 12, 20.)

One feature of good school decoration, i. e., proper tinting of the walls, has, until recently, received scant attention, and even to-day many school buildings give proof of lack of knowledge in this regard. Tinting of the walls is not only needed for esthetic reasons, but for hygienic reasons as well, e. g., bad tinting is an injury to the eye.—(Ohio, 162; Pennsylvania State Educational Association, 30; Waterbury, 5; San Francisco, 40; Rural Wisconsin, 26; Montgomery County, Md., 28.)

Adequate libraries.—The need of libraries is insisted upon in Ohio, 16, 41; Rural Illinois, 10; Three Counties, Alabama, 117; Pennsylvania State Educational Association, 80; Springfield, 70; Pittsburgh Gist, 325; New York, Vol. I, 95; and 1st Boise, 2.

Proper care of school plant.—The lighting system.—(Portland, 232.)

Humidity of classrooms.—(8 Rural School, Maryland; New York, Vol. III, 722; Springfield, 30.)

Heating.—Danger of overheating.—(Waterbury, 9.) Proper adjustment.—(New York, Vol. I, 40; Greenwich, 8.)

Ventilation should be properly attended to.—(Ohio, 299.)

Thirty cubic feet of fresh air per minute for each pupil should be provided.—(Pennsylvania State Educational Association, 30.)

Poor ventilation unfits children for learning.—(Ibid, 84.)

Only two of the teachers showed practical evidence of understanding the importance of good ventilation.—(Rural Maryland (Ms.), 2; Rural School Hygiene, Pennsylvania, 8, 16; Waterbury, 14; San Francisco, 40.)

Not taught or attended to properly.—(Rural Wisconsin, 29; New York, Vol. I, 40, 41.)

In this connection, it seems an oversight on the part of the surveyors that the topics of noise and dust should have received such slight attention. Physicians and sociologists have, for many years, realized the importance of those two topics.

The general subject of janitors and care of school buildings has received special attention in the following: Portland, 21, 24, 209; Pennsylvania State Educational Association, 36; San Francisco, 42, 69; Rural Wisconsin, 29; Pittsburgh Gist, 256, 262; New York, Vol. I, 46; Ibid, Vol. III, 731.

Social and moral possibilities in the use of the high-school plant.—Afternoon and evening classes.—(Butte, 68; Chicago, 37.)

The school as a great civic power should not be idle when it might be active.—(Cleveland (1906), 53; Newburgh, 19; Pittsburgh Gist, 286.)

School should be used as a neighborhood center; should ally itself with neighborhood interests and take cognizance of local needs.—(New York, Vol. I, 9; New York, Vol. III, 432, et seq.; Butte, 17; South Bend, 187; Springfield, 145; Ohio, 299; Committee of Fifteen, Wisconsin State, 28.)

Construction of school buildings for health and convenience of use.—(Portland, 210, et seq.; New York, Vol. III, 611, et seq.; Recreation in Springfield, Ill., entire.)

B. SCHOOL ADMINISTRATION.

The superintendent.—That superintendents are not always qualified for their positions is asserted by Kansas Survey of High Schools, 37, "at the present time our superintendents are less adequately prepared for their work than the teachers who are working under them."

That the right kind of superintendent is of great value is emphasized in the above citation and also in the following: Baltimore, 107; Atlanta, 23; Vermont, 70; Louisville (1912–13); Chicago, 37.

He needs, however, a sufficient staff of assistants to attend to the great burden of detail in his work.—(Ohio, 29; New York, Vol. III, 205.)

It is an enlightened and progressive policy to give the superintendent complete control over nominations, assignments, and promotions of teachers.—(2d Boise, 8.)

It is the superintendent who gives character and tone to the school system.—(Portland, 21.)

The Boston Finance Commission (1911), 15, declares that there is no danger of autocratic and dictatorial management from the superintendent's office. That the superintendent may make mistakes in his office, Rural Colorado, 57, intimates and says that as the teacher is the most important factor in the school, the superintendent's mistake is fatal if he selects unwisely; and Prof. E. C. Elliott, in New York (Vol. II), 362, says it is possible that the power of superintendents may not be used solely for the benefit of the schools:

The assumption by those in authority of attitudes other than of such encouragement and expectation means the maintenance of a system for the sake of system, and not as a means to effective education of children. * * * We find that the board of superintendents has become beaurocratic and nonprogressive.—(New York, Vol. I, 183.)

Since the superintendent is in general charge of the system, it is fair to assume that he will formulate its aims. "The tap root of effective teaching is to know what one is after; the lack of this has been the greatest weakness."—(South Bend, 188.)

One (person) ought never to assume to prescribe the content and character of the educational process to be applied to each of 43,000 young people.—(Portland, 137.)

The supreme motive of superintendents must be to work for the school.

The best superintendents are so busy getting things done that one never hears them find fault with directors or teachers, or parents or taxpayers, * * * hence the supreme test of the superintendent's efficiency is found in his ability to create genuine sentiment in favor of good schools.—(Pennsylvania State Educational Association, 87.)

Little attention is paid in the surveys to the need of care in the selection of superintendents and the need of greatest consideration in regard to their qualifications; as to whether their spirit is truly American, their nature sympathetic, their insight unusual, their power of leadership and their capacity to induce cooperation great, and their sense of justice strong and practical. Yet it is clear that, if they fail to possess these qualities, the system over which they preside can not conspicuously manifest those qualities. As the teacher, so is the school; but it may be with equal truth said: As the superintendent, so is the school system.

Principal.—What the superintendent is to the whole school system, it is evident that the principal is to a particular school.

Principals have sometimes been appointed because of improper influence, according to Pittsburgh Gist, 267, and New York, Vol. II, 303.

An impartial observer is at once struck by a characteristic attitude of mind on the part of principals that concentrate their attention on simply "holding the job."—(New York, Vol. II, 303.)

Principals should share in the actual teaching of the school.—(Montclair, 9; Committee of Ten, 54.)

They should be able to show how to teach.—(Butte, 97.)

The chief function of a principal is supervision.—(Kansas Survey of High Schools, 25.)

It is the duty of the principal, therefore, to surround the teacher with such an atmosphere as will encourage her to think her own thoughts and to express them frankly; that is, to be her normal self; also to impress upon her that he is ever watchful of her provision for self-expression among her pupils.—(New York, Vol. I, 335.)

Principals and teachers should be allowed a fair measure of home rule.—(New York, Vol. I, 39.)

Here again, in regard to principals, one is struck by the slight attention that is paid in the surveys to the need of care in the selection of principals and the need of a proper system of promotion according to merit.[1]

The teachers.—What sort of teachers are needed to induce social and civic habits?

The teacher must be of high personal character, honest, sincere, and clean-minded, and really devoted to the ideal of our nation. If he is not, how can he induce those qualities in his students?

Is the danger of having teachers of low minds and unclean habits and inferior character associate with adolescent children fully appre-

[1] To correct the present "manifest defect" in the appointment of persons to executive or administrative positions, certain rules are proposed by the "Survey of Chicago Public Schools, 1914," which has just appeared.

hended and safeguards taken? Is there no danger of "politics" *within* the schools from such types of teachers?

Teaching is the work of spiritual radiation.—(East Orange, 11.)

If the ideals of the teacher are low, the pupils suffer.—(Upper Peninsula (Mich.), 1914, 4, 7.).

The teaching and the teacher are regarded as the central factors in educational efficiency. How the teacher's personality reacts upon the developing personalities of the pupils, calling forth their latent powers, and inspiring them to high accomplishments and worthy living, has been a matter of careful observation and record, as noted in the Ohio survey.

Not much instruction, either secular or religious, can be given without a well-equipped teacher, whose personality, learning, and moral and religious life appeal to those under her care.—(Ohio, XXVI.)

But are those things insisted on in the *hiring* and in the *promotion* of teachers?

Are the teachers expert in the laws of adolescent growth, and are they skilled in culture of adolescent talents, through insight, sympathy, kindness, and affection? Do they visit the homes, that they may the better understand their pupils?

Any system of education, however perfect mechanically, is worthless unless the teacher comes in direct personal contact with the pupil * * *. Any system which tends to make the work of teaching impersonal * * * must fail in an educational way.—(East Orange.)

Teachers should have good will toward pupils.—(Bridgeport, 55.)

The qualities of insight, sympathy, kindness, earnestness, tact, and patience receive scant attention in the surveys, though they are well enumerated in Prof. E. C. Elliott's standards of efficiency, as quoted in Reply of Superintendents, pp. 32–34.[1]

Special training, health, strength, vigor, enthusiasm, and ambition are surely needed by the teacher if he is to impress pupils efficiently.

Other things being equal, the person with the special training is the best teacher.—(Pennsylvania State Education Association, 13.)

College training is especially favored in the same authority. That there may be a danger, however, from too much local talent is indicated in Springfield, 64.

Everything possible should be done to make them healthy, vigorous, and joyous as becomes those whose work is with children and who as public officials of the State must be held responsible as guardians of the public health.—(Pennsylvania Rural Hygiene, 9; Cleveland (1906), 61.)

What executive and social capacity should the teacher possess?

The teachers must possess initiative.—(South Bend, 188.)

They must be capable of cooperation.—(Bridgeport, 5.)

[1] See also Portland, 95.

What should be the civic status of the teachers? Should they be regarded as *servants*, or as *citizens with abbreviated rights?* Should they live in the community in which they teach and seek to become leaders in it?

We believe that a teacher has a right to be a citizen and a patriot; that to be less than either or both is to be a "mere teacher," and that a mere teacher is to be less than a full-statured man or woman.—(Georgia Club.)

Our young American citizenship should be trained by American citizens, and all teachers should have the rights and duties of citizens.—(President Joseph Swain, National Education Association, St. Paul, July, 1914.)

The teacher whose work counts is he "who is a leader and who understands community life."—(Committee of Fifteen, Wisconsin State, 25.)

Does it make any difference whether the teacher lives in the community where she teaches * * *? Do not these questions have a direct bearing on the possibility of the teacher's being a leader in the community?—(Ohio, XXVI.)

The Georgia Club holds as an ideal the teacher who reads and thinks, observes and serves his community far beyond the walls of his schoolroom; who claims and exercises part and lot in the life of his community as a citizen, as well as a teacher; who owns his own home, drives his teachings down deep, and shares in the task of community upkeep and upbuilding.—(Georgia Club, 17.)

Teachers would have to study children as they have never done before. The environment must be known, too; and that necessitates visits to the homes.—(Minneapolis, 68.)

East Orange does not care sufficiently for its teachers.—(East Orange, 11.)

Surely the work which the teachers do is of sufficient importance to the community to cause it to be solicitous for their well-being, and to provide every opportunity for its teachers to live as full and rich a social life as is open to any class of its people.—(Ibid., 11.)

School assignments.—What shall we say of the conservation of the teacher's powers and fairness in the assignments; pupil-hours; diversity of subject and class; time and opportunity to study children? Surely there are limits or norms.[1]

Large number is no excuse for machine methods.—(Portland, 137.)

There is no question but that the teachers in the high schools are to-day required to teach altogether too many periods per week.—(Portland, 129.)

High-school principals and teachers are engaged in teaching subjects rather than in educating the youth of the city.—(Ibid., 134.)

A halt should be called on excessive requirements of the teacher.—(Cleveland (1906), 61.)

Of 139 reporting, 102 (high-school teachers) were occupied from 30 to 40 periods per week.—(Ohio, 18.)

That teachers may teach youth rather than subjects it is necessary that they be allowed time to study sympathetically the youth they are to teach.—(Portland, 129.)

Small classes recommended.—(Cohasset, 2.)

What of a teacher's freedom in her work?

Obedience in teachers is a virtue; just as they expect obedience from their pupils, so they must obey their principals and other official superiors.—(Reply of the Superintendents, 53.)

[1] Ballou: High School Organization (New York).

Authority must be definitely placed, and must be respected and obeyed, yet schools are agencies to assist in organic and civic growth; and in that the teacher's function is the only one that is fundamental, and needless interference with that is fatal to the system.

It is unnecessary to say that the teacher is the most important factor in secondary education.—(Kansas Survey of High Schools, 38.)

This impression was further confirmed by the report of the committee on hearings held in April of this year, relating to cases of 17 teachers against whom charges of incompetency had been made by principals. Some of these charges seemed almost trivial.—(Portland, 35.)

"Freedom, freedom for personal influence and for the unfolding of personal power, is the thing for which we must strive above all else," says Paulsen, the greatest of the historians of education.[1]

The general course in New York City is unwisely and unjustly inflexible. There is need for much decentralized authority in its administration, and the delegation of greater powers to those who are finally to interpret and apply the curriculum.—(New York, Vol. II, 278.)

The teacher must have a sense of freedom in her work; else how can she have "initiative" and inspire her children to plan and think and act for themselves? The absence of this spirit in the daily course of work leaves a school, perhaps, uniform, but un-American, and worthless in our life.—(New York, Vol. I, 223.)

Conditions most favorable for good aftertraining are those which force teachers away from mere routine and stimulate them to do their own thinking.—(Bridgeport, 6; Portland, 129.)

As for the teacher's tendencies to disobedience:

As far as I have been able to observe, everybody is conscientiously and willingly doing about as good work as he knows how.—(South Bend, 119.)

The teacher must have self-activity, otherwise her "teaching" consists simply "of assigning pages, hearing lessons, and recording 'marks.' "—(Vermont, 80, 96; Springfield, 111.)

All the teachers appeared to be in the possession of the greatest freedom in the conduct of their work. There was also every evidence of a desire to cooperate in any effort calculated to improve their own work. They constantly welcomed any effort to assist them.—(2d Boise, 25.)

How do practices in regard to tenure and promotion affect the work of teachers?

That changing of teachers is bad is indicated in East Orange, 19; Rural Pennsylvania, 19; Three Counties in Alabama, 81; 1st Boise, 2; Annapolis, Md., Bulletin 2, p. 7; Grafton, 123.

Permanent tenure frees teachers from the "disturbing uncertainties of annual election," according to 2d Boise (8), but an absolutely fixed tenure is bad for all concerned (Portland, 46 et seq.); and Cleveland, (79), reminds that "Promotion should be merited; any other basis is a *dishonest* basis."

Of course, dishonesty in the management of a system poisons the system and the teacher's mind—the source of efficiency in the schools;

[1] Höheren Schulen, p. 28.

produces lack of confidence, suspicion, toadyism, cliques, and favoritism, in the atmosphere of which good work is impossible. A plan of merit promotion is outlined in Sacramento, 118, and Cohasset, 3.

Salaries and "equal pay."—Nearly all the surveys insist that the teachers' salaries are too low, and that a fair salary is necessary if the teacher is to be in good condition physically and mentally for her work; she must be able to command the decencies and some of the comforts of life, and have her mind free from worry for her future.

As for "equal pay," the New York superintendent's report (1913), page 226, says that it "surely eliminated men from the teaching corps." More *men* are needed in high schools. (Chicago, 98.)

Since the official contact of teachers with their superiors may be so vital or so injurious, what is to be said of the nature of supervision?

Supervision of teachers.—Duties of those charged with supervision:

1. Demonstration of methods.
2. Criticism of instruction given by teachers.
3. Securing of the participation of teachers in the development of supervisory and administrative policies.
4. The measurement of achievement of pupils.—(Butte, 97.)

It is a mistake to think that anyone can inspect our secondary schools.—(Kansas Survey of High Schools, 14.)

The system seemed to be suffering from too many rules and too little personal initiative. * * * The overdirection seemed in a way to be stifling the growth of those in it and in part paralyzing their impulses to individual action.—(Portland, 28.)

A good supervisory organization always places a positive premium on the development of those personal and professional qualities which give tone and character to a school. It encourages a judicious use of personal liberty in action and stimulates thinking and personal growth by placing responsibility and encouraging initiative. Especially in the high school does it place a premium on intelligent *departures* from *uniform procedure*.—(Ibid, 31.)

Supervision is a complex task.—(Vermont, 74; 107.)

It aims to establish and maintain for the individual teacher and the individual pupil standards of worth and attainment.—(New York, Vol. II, 320.)

Cooperation under leadership is the fundamental principle of effective supervision—(New York, Vol. I, 182; Prof. Hanus, Preface to Dr. Elliott's School Supervision (N. Y.) Sch. Eff. Series.)

There is need of constructive supervision.—(Springfield, 66.)

The majority of the principals seem lacking in the essentials of a good and helpful leader. By this we mean the ability to improve and develop teachers as teachers; to encourage and aid them in their particular work; to advise them as to better ways and methods and to inspire them with confidence and to enthuse them for the work of instruction.—(Portland, 35.)

To be such a leader a principal should know the details of all phases of the school work as well or better than do his teachers; he ought to be able to take their classes from them and teach them as well or better than they can; and in methods of work and reasons for doing things he ought to be distinctly their leader.—(Ibid., 35.)

The number of supervisors may be insufficient.—(Baltimore County, Md., 59.)

Large numbers of children to be educated demand correspondingly large numbers of teachers for the task. Only let each teacher bear the responsibility and exercise the intelligence worthy of a real teacher and the individuality of the child, who is 1 in a system of 100,000 pupils, may be as fully respected and as adequately treated as though he were 1 in a system of 100 pupils. The progressive withdrawal from teachers and principals, as their numbers increase, of opportunity and responsibility for the exercise of worthy educational intelligence, and the corresponding increased assumption of responsibility by central authority as the knowledge for the exercise of it decreases, is indeed a prevalent, but none the less a mistaken practice, without justification or merit.—(Portland, 138.)

It ought to be the superintendent's chief business to read, study, observe, think, plan, advise, and lead.—(Portland, 37.)

Teachers * * * are constantly gathering practical experience which would be valuable to the administrative authorities. Consequently their advice may often be advantageously sought.—(Newburgh, 11.)

THE HIGH-SCHOOL PROBLEMS.

Let us strive to ascertain the contour and dimensions of this high-school undertaking.

To care for hundreds of thousands of boys and girls, of every blood, nature, and disposition; all different, all alive, all changing, sentient, sensitive creatures, growing rapidly with the new-born emotions and thoughts of manhood and womanhood in the making, and yet to awaken and develop, in each one, common qualities for our civil life—that is the creative task of the high school. The public, the social, the national needs must be regarded, but the glory of our State consists in the fact that the individual's need and interest are also sacred.

The individual's need and interest should determine studies and methods.

The policy of treating every boy and girl according to individual needs seems so profoundly reasonable that it is hard to believe that any other policy could be obviously and deliberately pursued. Yet, it is a most obvious fact that until recently almost everywhere, and still prevailingly, the policy is not to find out what children as individuals need and then to supply that, but to determine on the things to be done—subjects to be taught, methods of instruction, plans of organization, and administration—and to let children adapt themselves as they can to these predetermined requirements, or abandon their education.—(Newton (1913), 15, 16.)

Perhaps the greatest educational question of modern times is how may the public-school system be organized and the schools conducted so as to aid in the discovery of the special talents of the youth of the land, develop these talents in the highest degree possible, and turn them to social account.—(Illinois (1907), 4.)

I know now that he would have been interested in the agricultural school, but I was always talking *dentist* to him then.—(Parent's statement, quoted in Minneapolis, 21.)

In this connection nothing has been said of the most important of all principles in successful teaching—individual instruction.—(Ogden (Ms.), 3; 1st Boise, 1.)

Other nations have the same problem, evidently.

A. Matthias, member of German State ministry of education,[1] says:

Ever since 1892 the authorities have declared again and again that they would be glad to see the curricula handled in a liberal spirit. Intelligent and enterprising directors and keen, self-reliant groups of teachers have done their part to avoid the strait-jacket, but in vain. * * * Schools have not seldom taken on the aspect of factories, where forever the same threads were spun and all work seemed a burden instead of a joy.

What is the proper application of these facts and considerations?

COURSES OF THE HIGH SCHOOL.

While individual instruction must ever be the ideal in American schools, human society, as well as school life itself, imposes certain limitations upon ideal individual aims.

Articulation of high schools makes necessary certain adjustments: (*a*) With the elementary schools in order to bridge the present gap between them and the high schools; (*b*) with colleges and professional schools; (*c*) with the business and industrial world. How can these adjustments be made?

The six-year high school.—Can we discover what it is in the teaching or administration of our schools that causes the work to lack individual quality, to be mechanical and unproductive?

How can we secure individual instruction? Can it be that the lack of it is due to ignorance or disregard of the nature of adolescence, to disregard of the practical needs of the children, and to too great dependence on college entrance requirements?

The program of studies takes little account of those who leave school at the early age of 14 or who go to work. (Montclair, 20.)

"On the other hand, much that is attempted in the first year of the high school, when students have reached the age of adolescence, can be done very much better at ages of 12 and 13," says East Orange, 57, 58 (see also 63–64); and adds its testimony in favor of beginning high-school studies in the grammar schools. This is the view expressed in Newton, 1913, which says that it is the "pupil's need," not the "quality or quantity of his work in elementary schools," that should be regarded in admitting him to high school; and again in the high school his work should be arranged according to his needs.

This view is favored by Harrisburg, 13; San Mateo (Ms.), 71; Ogden (Ms.); San Francisco, 60; Richmond Synopsis, 23, 26; Connecticut (1907–1909), 67–68; Baltimore, 49; New York, Vol. I, 148, 463 et seq.; Minneapolis, 7; 2d Boise, 5; Portland, 196 et seq.; Nutley, 17; Kansas, 29.

The six-year plan is advocated also by Springfield, 117–122, as being desirable there, and as being successful in Berkeley and Los

[1] Quoted in "Oberlehrer," 133.

Angeles, Cal.; Grafton, S. Dak.; Columbus, Ohio; Cokate, Minn.; Chicago, Ill.; Neodesha, Kans.; and Concord, N. H. Another able discussion of the plan is given in Vermont (Bulletin 7), 96–99.

Admitting that the junior and senior high schools are still in the experimental stage, and that there may still be some question as to whether they will afford the greatest help in the production of civic talents and habits or not, this much is certain, that it is during the years of adolescence that each human being is recreated physically, morally, and mentally, that bones grow, social powers and affections are developed, that ideals take form and luster, the bent of the will is given—in a word, that the foundations of character are laid. This is the time in which the true teacher by personal quality, by sympathy and insight, can do a work of lasting value for the youth and for the Republic; and the school administration, by assisting, can render splendid public service.

The chief thing is a desire to work. In Kerschensteiner's words: "It is as a rule a matter of indifference what form educative work takes. The important thing is honest, earnest work."

"Local needs * * * fresh intellectual and spiritual needs" must both be considered. (See General Education Board, 95,96.)

But the child's interest needs to be aroused for this purpose, and an unyielding curriculum may not arouse interest.—(Portland, 129.)

It also prevents development of powers of judgment.—(New York, Vol. II, 278.)

The teachers then, i. e., with an unyielding curriculum, teach subjects and not pupils.—(Leavenworth (Ms.), XI.)

Elective work.—The best authorities approve a certain amount of elective work (Ogden, 7). It is admitted, however, that election should be accompanied by advice. (Ibid, 8.)

When a pupil is not getting benefit from a study he should be allowed to change,

declares Grafton 9, 10, but certainly not so that he will cultivate "whim" power instead of will power.

The school program must cover:

(*a*) The school arts—reading, writing, arithmetic.
(*b*) Language and literature (modern and ancient).
(*c*) History, government, and economics.
(*d*) Art (pictorial and plastic, constructive art and music).
(*e*) Mathematics.
(*f*) Natural science.
(*g*) Manual arts and domestic arts.
(*h*) Physical education, including physical training and athletics.
(*i*) Vocational guidance.—(Prof. Hanus, in New York, Vol. I, 136.)

Now, which of these studies and courses should a high school student select?

The first and most important thing for a child in early adolescence is to become interested in something that will call out his best qualities and powers and develop his staying habits.—(Portland, 194.)

Where high-school students have once answered the question of their life work, then does school life become real, earnest, and studious. Concentration is impossible as long as that question remains unanswered.—(Nutley, 17.)

But in general, it seems an unreasonable thing to expect an immature child to know what his life work is to be. His school record, the judgment of his teachers, ought to be of importance both for him and for his parents in the selection of his studies. The chief advantage of the high school consists in the fact that it gives the pupil some chance for greater maturity, wider vision, and better self-knowledge before plunging into the occupations, whether "enervating" or "energizing." Meantime the student will exhibit tastes and interests, and surely these should be regarded in the making of his program, and in the continuance of it.

If the high school would train the boys and girls so that they would be ready to go after something with assurance, then they could settle such things as wages when they go to work.—(Minneapolis, 11.)

English, and especially *oral English*, is essential in all programs; it is most potent in developing interest and personal power, clearness of thought, and is especially the means for moral and social training. This is emphasized in Bridgeport, 92, 120; East Orange, 55; New York, Vol. II, 285, 293; Montclair, 22; Indust. Com., Md., 16; Vermont (Bulletin 7), 85, 100, 101.

But standards in English are needed.—(2d Boise, 26.)

Dramatization is helpful.—(Leavenworth (Ms.).)

Debating clubs give interest and power.—(Counties Ala., 136.)

Teachers ought to be able to use good English.—(City School Supervision, 107.)

Poor quality of instruction in English is noted in the Ohio State survey.

The old Committee of Ten[1] declared that every teacher of every department should feel responsible for the use of good English on the part of his pupils.

Teachers of science and shop practice need to teach English.—(Gary, 44.)

History, civics, and economics.—"Knowledge of civics is not the most pressing need of our schools; the first and most pressing need is the exercise of civic virtues," according to Kerschensteiner, Education for Citizenship, 97.

But the student should give at least one year's attention to a study of the government of city, State, and Nation, according to the statement in Portland, 161.

Citizens who do not understand public questions imperil the welfare of the State and Nation.—(Rural School Commission, North Dakota, 13.)

History and civics should receive adequate time.—(Montclair, 14.)

[1] P. 21.

Only 3.2 per cent of school time is devoted to civics.—(Ohio, 13.)

Knowledge of civics and history is necessary for good citizenship.—(Industrial Commission, Md., 17; Syracuse, 37.)

Local history should receive especial attention.—(Baltimore, 84; Bridgeport, 128.)

Pupils should learn to appreciate and feel the spirit of history.—(Butte, 56.)

In Modern Educational Theory it has been common to define the aim of education in terms of social efficiency. * * * These qualities may be expressed as follows:

(1) Sympathy, or responsiveness to social needs.

(2) Intelligence or ability to think straight with respect to those issues which involve all members of the community.

(3) Habit of acting for common good.—(Butte, 37.)

This is the age when the community ideal is uppermost.—(Nutley, 16.)

But a spirit of confidence, cooperation, and good will in the atmosphere of the school itself are certainly quite as influential as a knowledge of community needs. When sympathy and a spirit of cooperation are once developed in the child, a knowledge of social needs will add a social quality to his character.—(South Bend, 119.)

In short, the schools are developing a social consciousness that leads them to measure their efficiency in terms of social service.—(Emporia, 259.)

It would seem that much of our trouble between labor and capital might be avoided by a deeper knowledge of social conditions; and if "social consciousness" and especially social good will really enter the child's being, it is not probable that they will fail him in his manhood.

Latin, Greek, Algebra, and Geometry.—It is an odd fact that while the renaissance and revival of learning began with a revived interest in Greek and Latin authors, at the present time practically most of the ills that education is heir to are ascribed to these so-called dead languages. Around their tombs fierce battles have been fought, and the contest is not wholly decided yet, but it must be admitted that the trend of the surveys is against them.

To-day Latin, algebra, and higher mathematics can no longer be foisted upon thousands of unwilling high school and normal school and college students merely in the name of an alleged culture.—(New Orleans (D. S. Hill), 56.)

The result is that many small high schools provide Latin to an extent out of all proportion to the resources of the school.—Connecticut Board of Education (1907–1909).

Education in the high schools of New York is declared to be too scholastic; Latin, mathematics, etc., being required of all.—(New York, Vol. I, 163.)

The Vermont report describes the injury done by the classical college program in the Vermont educational system.[1]

Most students not going to college should not be allowed to take Latin.—(East Orange, 55.)

I do not intend to disparage the educational value of the classical course for those pupils who obviously profit by it.—(Montclair, 24.)

The old curriculum of Latin, Greek, and mathematics still has its unique place for a few students with interest and time to follow them to fruition.—(New Orleans (Hill), 55.)

[1] P. 82, et seq.

Yet teachers of Latin, if we are to judge by the National Education Association plan for reorganization of secondary schools, believe that Latin still has a place in the general course for efficiency, and Vermont, 83, seems to hint that it might produce better effects if the teachers of it were better prepared.

Science has revolutionized modern life and must vitally affect all school procedure.

The modern mind turns persistently to those studies which look toward the conquest of life and of nature; and the place of science in school programs is certain.—(Vermont, 102.)

And especially those phases of it which direct the thoughts toward the needs of the home and the farm.—(Portland, 186; Vermont, passim.)

Vocational education.—The severest criticisms of the high schools have been that they do not fit the students for their life work, and, during the last five years especially, tremendous stress has been placed on the importance of fitting the child to take his place among the workers of the world, beginning with the report of the Massachusetts Commission on Industrial Education in 1907.

Every girl, in addition also to her general education, should know the various arts of practical housekeeping.—(Syracuse, 29.)

The school should do its part to induct the child into the life about him, instead of diverting him from it; * * * the school should induct the child into industrial and economic life far enough so that his education will serve as a vocational aid.—(New York, Vol. I., 57.)

Vocational education is a local not a general issue. It must be adapted, in its content and method, as well as in its organization and administration, to the social, industrial, and educational condition of the community.—(Synopsis, Richmond, 5.)

That special schools were needed for this purpose was stated in 1907 by the Massachusetts industrial commission, 32–33, which insisted that those schools, in order to protect their aims, would have to be established as independent schools.

The desire for such schools was expressed in Cleveland, 1906 (p. 5).

As the average boy must earn his living by manual dexterity, such training is a necessity.—(Ibid, 41.)

It was but natural that the storm and stress for technical education should lead to some exaggeration in statement and in plan and a reaction from this again should lead to a just review, which includes a consideration for the youth as a human being as well as an industrial agent.

Have less mechanical work and more work which will develop individuality.—(Upper Peninsula, 1914, 5.)

The fundamental idea in the normal development of children is self-activity.—(New York, Vol. I., 135.)

Does the trade or shop call only for quick fingers, keen eyes, and strong backs? If so, some new machine will displace these; the industrial education of the American citizen must also involve that training of the will and mind together, that character is the result.—(Portland, 87, 90, 91.)

The hard fact that many children must begin to earn their living as soon as the law will permit, makes necessary special consideration for such pupils. Part time instruction and continuation schools are designed to prevent them from being submerged in the ranks of the unskilled.

The new interest in industrial education has led to a closer inspection of shops and factories to determine their degree of suitability for youthful laborers. A classification of industrial occupations into "energizing" and "enervating" has led to the thought of rendering especial educational assistance to the unfortunates who have fallen into the latter classification.

We are putting the brains into the machine and into the management office and making the workman a purely automatic adjunct.—(New York, Vol. II., 767.)

The school appeals strongly to that class of young people who are so industrially and commercially inclined that they leave school and accept positions where little skill is required at meager salaries.—(Columbus, Ga., 14.)

Industrial training should have a higher aim than manual dexterity or purely special technical skill.

Integrity, honesty, discipline, sound health, fair dealing, respect for others' rights—these have come from the courageous assumption of one's burden of work, and the opposites of these are the results of the desire to dodge the burden. So we have the natural law of work, the substance of which is this: Work, and you will reach a higher mental development; cease to work, and you will degenerate.—(New York, Vol. II, 766.)

But for this purpose the school and shop can work together.—(New York, Vol. I, 23.)

There is danger from premature specialization in the case of adolescent children.

It is therefore clear that the secondary school should not aim to determine a child's vocation definitely, or fit him for a certain calling.—(New York, Vol. I, 56.)

Yet when it is practically certain what calling a child is to follow, it is the part of common sense to give him definite assistance; and even if the child's permanent interest is not determined, practical trade instruction may be the best means of assisting him to know his own mind, and in any case he may well be the gainer by the training. This is emphasized in 2d Boise, 4; East Orange, 63; Atlanta, 23; Rochester (1911–1913), 110; Butte, 91; Rural Tennessee, 48; South Bend, 138.

Whether a child is to become a mechanic or a captain of industry, he should, in either case, be taught to learn how to work and to respect labor.

The dignity of labor is and should always be the big plank in the platform of every child's education.—(Ogden, 6; 2d Boise, 4.)

Agricultural education.—What can the high schools do to help meet our agricultural needs?

Strong agricultural courses should be established as a part of a State-wide system.—(Ohio, 156; 1st Boise, 4.)

The teaching of agriculture is of such surpassing importance to the welfare of Vermont that a defense of it is unnecessary.—(Vermont, 89.)

The school should offer a good course, or two courses, in agriculture, not primarily as technical training, but, like the courses in manual arts recommended below, primarily to give insight and develop interest in an industry of fundamental importance—whereby society keeps itself going.—(Montclair, 26.)

Boys leave the farms because they think farming of less interest than trading. * * * Except in some parts of Indiana and Ohio, the schools are organized for the express purpose of robbing the farm of the best boys and peopling the cities with lawyers and ministers and merchants' clerks.—(Rural Life Survey, 15th Conference for Education of the South, 93.)

Interest in farm life should be encouraged by all means.

It is clearly necessary to make farm life more attractive for young people, to give them a fair measure of recreation and healthful social life.—(Rural Missouri, 41.)

The corn clubs and the corn-growing contests help to this end.—(Rural Wisconsin, 11.)

The most effective form of instruction in vocational subjects is that which is being carried on by the United States Department of Agriculture in the work of boys' and girls' clubs.—(Three Counties, Ala., 125.)

In the spring, the children should be encouraged to plan home gardens and be given credit in some way for the work.—(Ibid, 133.)

Prizes for home gardens.—(2d Boise, 23.)

School garden meetings.—(Portland, 17.)

Not only is home garden work vauable in itself; it gives training in the higher mental qualities. "It requires foresight, since the crop planted in the spring will not be harvested until late summer or fall."—(South Bend, 153.)

Value of home garden training recognized.—(San Mateo (Ms.), 37.)

In this connection the statement may be made that home gardening for food is the most practical and necessary form of nature study.—(Porto Rico, 17; Montclair, 7, 8; Three Counties, Ala., 107.)

The high-school courses should differentiate into the cultural high, the commercial high, the agricultural and the industrial high school.—(Virginia Education Com., 15.)

Commercial education as now taught in the high schools is inadequate.

Our commercial education at present trains only for the "enervating" occupations of commerce, corresponding in a rough way to the automatic work of industry. * * * As a consequence, the higher type of individual, the energetic, forceful, and ambitious boy or girl, does not pursue a commercial education.—(New York, Vol. I, 816; New York, Vol. II, 43.)

Music has social and patriotic values which should be utilized.

Training in music may have social and patriotic value, as well as esthetic.—(Three Counties, Ala., 136–137.)

Music should receive more attention in the high schools.—(East Orange, 55; Portland, 177; 56th Rochester Rept., 309; Montgomery County, Md., 38.)

Sex hygiene.—Healthy-minded people realize that adolescents should have their minds drawn away from subjects of sex to ideals of service; and appropriate motor activities should be cultivated, if

stunted or perverted children are not to be the product of the high schools.

Question. Do you believe sex hygiene should be taught in the schools? Why? How?

Answers. Yes, 92. No, 175.

No; parents should teach these truths; teachers are not qualified. Imagination and morals might be corrupted.

Yes; parents dislike to talk on such matters; * * * children get their information on the streets.—(Upper Peninsula, Mich. (1914), 6.)

The answers to the fifth question indicate that patrons of the school are not ready, as yet, to have sex hygiene taught in the public schools.—(Upper Peninsula, Mich. (1914), 11.)

The question of its teaching requires further and deep consideration.—(N. Y. Supt.'s Rept. (1913), 252.)

Preparation for college.—Whatever the effect of the college entrance requirements may have been upon the high schools, the fact is a large number of high-school pupils go to high school to prepare for college. It was this fact which led the president of Harvard University to modify the entrance requirements at that institution. This is a reversal of the old procedure, when the high school based its curriculum entirely on college requirements. It seems but reasonable that those who are fitting students for college should definitely strive to adjust their courses to the college needs. This point is well made in Montclair (26) and New Orleans (55).

What college courses are vocational in the broader sense is brought out in East Orange, 63.

Promotion of pupils.—The adjustment of school to scholastic and vocational needs makes necessary consideration of the topic of promotions and records.

A complete set of records should be kept for each pupil.—(Minneapolis, 7.)

For over 10 years Waterbury has had in use an excellent system of continuous record cards for pupils in the schools, excellent in that (*a*) by the use of individual cards the complete record can be moved from school to school as easily as the boy; (*b*) the things the superintendent, board members, and taxpayers ought to know about the children are there on the card.—(Waterbury, 3.)

They should offer the school history of each pupil.—(New York, Vol. I, 88.)

Such cards are needed for promotion of pupils.—(Atlanta, 23, 32.)

There is danger lest the teacher should promote pupils, whether they deserve promotion or not.—(Montclair, 9.)

Yet Portland (165) says that promotion of pupils must be determined not by what they have learned, but by what they need to learn. But the schools of the United States are hardly prepared to discard the estimates that are known as "marks," and even if the Portland plan should be adopted, it might be as difficult to ascertain their "needs" as to ascertain their "learning." This brings up the topic of—

Standards and tests.—The Hillegas scale for composition, the Ayres scale for handwriting, and the Courtis tests in arithmetic have received special recognition in the surveys. The Thorndike scale is recommended in Leavenworth (Ms.), VII, X, and a bureau of efficiency is authorized (Rochester, 113); such a bureau is advocated in South Bend, 112; Atlanta, 33; Ohio, 30.

Neither the professional reader nor the lay reader needs to be told that there are very few established standards whereby the efficiency of educational activities may be measured, and that accepted methods of studying such activities are, for the most part, yet to be found. The science of education is as yet in its beginning.—(Prof. Hanus, New York, Vol. I, 128.)

PURPOSES AND RESULTS OF HIGH-SCHOOL ADOLESCENT TRAINING.

What are the specific, personal, social, and patriotic powers that our youth should possess? Do our high schools produce these qualities? Qualities that make for—

A. Individual welfare: Health, strength of body, mind, and will; self-respect, self-reliance, self-activity, interest, ambition, forethought, initiative, industry, thrift, thoroughness, resourcefulness.

B. Home and social welfare: Affection, modesty, clean-mindedness, good will, confidence, truthfulness, honesty, honor, good manners, punctuality.

C. National welfare: Loyalty, self-sacrifice, love of liberty, respect for authority, law, and order; sense of justice, ambition, leadership.

What are the means of discipline for violation of the moral code?

Citizenship and its virtues are very real and definite things; they can not be secured without definite aims and appropriate means taken, whether those means be direct or indirect, for in this case the by-products are the chief products. "Nations, like individuals, must know their own minds and take appropriate means to attain their objects." [1]

These aims are clearly spiritual and can be developed (*a*) only by persons of high character and (*b*) with clear aims and by definite methods; (*c*) by uniform public-spirited policy on the part of all teachers, boards, and administrative officers. It is undoubtedly best that the student should not in general know the purpose of the methods taken, and in general the aims may not be obvious; but none the less, the aims and methods should be very much alive.

The tap-root of effective teaching is to know in specific terms what one is after.—South Bend, 188.)

[1] Kerschensteiner: Education for citizenship. Lewis: Democracy's High School. Jones: In Reorganization of Secondary Education. Branson: The Georgia Club. Sadler: English Surveys and Moral Education.

The need for moral training is declared in nearly all the surveys and with an insistence that leads one to the belief that the practical need of it is great. In S. Minnesota (51) it is charged that town high schools cause spread of immoral influences.

It (the high school) must meet the call of organized society for the constant addition to its ranks of those who by their training can raise yet higher its social standards in moral, ethical, civil, and esthetic affairs.—(56th Rochester Report, 248.)

Manners and morals must, of course, be taught in every lesson, but they should also receive separate attention.—(East Orange, 50.)

Definite tests are suggested in Atlanta (35), and the general dictum that "boys and girls must be taught to see the value of correct moral conduct and character" is given specific attention in the following: Grafton, 11; Minneapolis, 67; Massachusetts Industrial Commission (1907), 59; Upper Peninsula (Mich.) (1914), 5; South Bend, 35; Vermont, Bulletin No. 7, 96–97; San Francisco, 12; Boston Finance Commission (1911), 7; Virginia Educational Commission, 16; Leavenworth (Ms.), 10; New York, Vol. I, 135.

None of these indicate just how the high schools are to raise the moral tone. Certainly it can not be accomplished by requiring adolescent youths to sit still for five hours per day. That the moral spirit and the moral atmosphere of schools are much more potent than talk about morals is emphasized in Ohio, 68; Montclair, 9; Grafton, 9; and 2d Boise, 25.

A. PERSONAL POWERS.

That there should be definite training to produce health, strength, and activity of body and mind is recognized by many surveyors; but the statements in regard to training of the will are generally vague or missing. Yet character depends on the training of the will, and will power is especially susceptible to training during adolescence.

The following imply that the training of the mind in high schools has been mechanical and stupid, e. g., the mere assigning of lessons and "hearing" them, with, very often, the "suggestive question" on the teacher's part: Pennsylvania State Educational Association, 85; East Orange, 44; Cleveland, 19; Springfield, 68, 79, 111; Butte, 40, 42, 79, 111; Bridgeport, 6, 7, 55; East Orange, 38; Rural Wisconsin, 53; Leavenworth (Ms.), 8; Ohio, 68.

Pupils should be trained to reason. They should be required to think out problems.

The progress of our democracy depends in the last analysis upon the power of the individual citizen to think for himself.—(Butte, 39.)

Knowledge or information can never be thought of as anything more than the raw material of thinking.—(Ibid, 39.)

The lack of power to think consecutively is due in large measure to assigning too many subjects, hurrying over them and doing nothing well.—(Portland, 192.)

What attention is paid to the qualities which indicate individual power—self-respect, self-activity, self-reliance, self-control?

Work which will develop individuality is emphasized in Cleveland (1906), 16; New Orleans (D. S. Hill), 15; Upper Peninsula (Mich.) (1914), 5; Emporia, 256; New York, Vol. I, 135.

Motivation and transforming the play impulse into the work impulse.—(Gary, 35.)
Real things to be made by the children.—(Bridgeport, 66.)
To go after something.—(Portland, 18.)
The schools in Baltimore or elsewhere are worth all they cost in giving multitudes of children those habits of self-control.—(Baltimore, 101.)
The basis of this method is proper coordination between the child's mind and body; in a word, rational self-control.—(New York, Vol. I, 57, 135.)

Four standards for determining the efficiency of New York elementary schools in regard to these qualities are given: (1) Motives; (2) values; (3) reasoning; (4) initiative. (New York, Vol. I, 231.) These are, of course, fundamental; and any system that really lacks them is fatally deficient.

Interest, initiative, and ambition. What note is taken of the pupil's capacity for these?

Teachers should assign problems to discover those traits.—(Butte, 40.)
Examples of Lincoln and Washington influential.—(Bridgeport, 79–80.)
Pupils helping each other; brass band; English—(Gary, 27, 9.)
Energizing work.—(New York, Vol. II, 768.)
Oral English.—(East Orange, 55; New York Superintendent's Report, 1914, 28.)
Something that will call out his best powers.—(Portland, 191.)
Supplying motives (e. g., higher careers of employment).—(Grafton, 6; Springfield, 128.)
Boys' and girls' farm clubs.—(General Education Board, 98.)

Forethought, industry, thrift, thoroughness, and skill? Are the scholars required to be through their work and to be planning ahead?

Collecting necessary information for solution of their problems.—(Butte, 40.)
Doing school chores.—(Springfield, 137.)
Respect for work, needed.—(15th Conference for Education in the South, 93.)
Keeping schools running all the time, so as to adjust them to needs of pupils.—(Gary, 9.)
Giving children real work, and adapting it to their needs.—(Minneapolis, 23, 59.)
Real work and spirit of real work.—(South Bend, 155.)
Part-time activities.—(Ibid.)
Love of work and effectiveness of effort.—(Kerschensteiner, "Training for Citizenship," 24.)
Get the home to take an interest in school work.—(East Orange, 10.)
A few subjects pursued with earnestness.—(Cleveland (1906), 71.)
Tilling the soil, teachers setting example.—(Porto Rico, 1914.)
Trade school—Part time.—(Montclair, 23.)
Assert dignity of labor.—(Maryland Industrial Commission, 13.)
Educating boys in touch with social and vocational needs.—(Ibid.)
All play and no work just as bad for Jack.—(Emporia, Kansas School Magazine, Sept., 1913, p. 256.)

Resourcefulness and responsibility are essential in American life.

An obligation to do something to produce something in the world.—(Emporia, Kansas School Magazine, Sept., 1913, p. 258.)

Thus while ambition is stressed, the sense of obligation (viz, to self) is slighted. There seems thus, in general, an incomplete recognition of the possibility and need of training the will power.

B. WHAT TRAINING IS GIVEN IN THE SOCIAL VIRTUES?

Are the aims and methods of securing them definitely set forth?

Purposes should not be set forth in vague, general terms.—(South Bend, 190.)

What thought is there of modesty, clean-mindedness, and clean conduct?

Personal purity and the sanctity and value of the family relations are the source of sane community life.—(Pittsburgh "Gist," 237.)

Personal hygiene.—(Richmond Synopsis, 27.)

Are not right conduct, sanity, and purity quite as important to the nation as reading and ciphering?—(Syracuse, 36.)

What of truthfulness, honesty, and honor? Are they absolutely required? Or, are falsehood and cheating passed with little comment?

The boy who learns to do honest work is quite likely to become an honest man; and we must teach them to do right by doing right by them, and teach them morality by example.—(Syracuse, 15.)

Truthfulness and honor are, of course, covered under the general term "morality," but they are distinct qualities in themselves, and are therefore distinct ends. The word "honor" does not seem to occur in the surveys.

What of helpfulness (e. g., in chores, work), good manners, and punctuality? Are the pupils required to work, to have good manners? And is it regarded as a serious offense to be late without good cause?

Effective part in the occupation and life of the community.—(Portland, 95; 2d Boise, 26.)

These virtues are punctuality and regularity, etc.—(Pennsylvania State Educational Association, 78.)

The children are acquiring habits of courtesy and consideration.—(East Orange, 39.)

C. WHAT TRAINING FOR PATRIOTISM?

What do the surveys say of love of country, love of law and order, obedience, loyalty, and self-sacrifice? Are the students trained in these necessary virtues?

The schools are the people's schools, and the State's, established for the perfecting of citizenship. Good citizenship must be the chief product of the common schools.—(Cleveland (1906), 23.)

Is this too good to be true?—that is, securing the loyalty and affection of every boy and girl, father and mother in the community.—(Ohio, 155.)

From the ages of 14 to 21 they seem to disregard established institutions and to break the bonds of the home, the school, and the church.—(Rural Indiana, 13.)

To what extent have they developed better citizens? Isn't it true that the younger generation knows less about government affairs than the old timers?—(S. Minnesota, 50.)

High schools needed in the South to help in solving political difficulties.—(General Education Board, 95.)

The personality of the teacher valuable in securing regard for order.—(Springfield, 71.)

Forty-seven schools do not have a United States flag.—(Montgomery, Md., 30.)

Need of definite training to secure virtues of patriotism, and a recognition of the fact that it is spiritual work.—(New York, Vol. I, 135.)

Justice and self sacrifice as definite aims appear lacking in the surveys, as do also motives for ambition and leadership; but what could a nation accomplish if its people quite lacked the spirit of these virtues?

The treatment of the subject of obedience is slight, and leads us to consider the general topic of—

D. DISCIPLINE FOR SERIOUS MORAL OFFENSES.

What discipline or procedure is recommended for lying, stealing, cheating, disobedience, immorality, truancy? Do the schools recognize conscience? Do they train the sense of right and wrong, and give appropriate sanctions?

Together with the instruction public education offers, it should therefore insist throughout on discipline that is wise, kindly, and firm, including appropriate punishment when it is needed—a discipline that insists on progressive conformity of conduct to insight, including habits of steady application and reasonable achievement.—(New York, Vol. I, 135.)

This is a wise and well-balanced statement, but definite procedure in regard to "appropriate punishment" for flagrant violations of good conduct is certainly of importance to the State, whose duty it is to maintain law and order.

We believe that in the principal should be lodged the power of temporary suspension of a pupil.—(Cleveland 1906, 21.)

Protection of the morals of the school is of consequence, even if exclusion of a pupil is necessary. But that is an extreme step; yet the tone of the adolescent school and the value of all the instruction is determined by the way in which those cases of discipline are handled. A principal without the capacity for moral judgment and decision is a menace to society.

Consider the moral atmosphere of a school in which the following is true:

Lack of discipline was a matter of grave concern which many teachers felt they were unable to cope with under present by-laws and present conditions.—(New York, Vol. I, 60.)

Should it appear that the schools do not foster respect for law and order, they would forfeit their right to exist.

As for truancy, mention is made in New York, Vol. I, 94, of a day school for truants; and a suggestion is made that district superintendents might be empowered to give judicial hearings.—(New York, Vol. I, 34.)

And a recommendation is made that for elementary schools, corporal punishment for unruly pupils should be inflicted.—(Ibid.)

In the high schools the problem, when occasion arises, is more serious because of the greater maturity of the students; and without adequate treatment, anarchy exists. There is but little mention in the surveys of these graver offenses and their proper treatment, but experienced teachers know that cases of them arise in all high schools, and, however few they may be, their importance and their practical influence in a school of adolescents is out of all proportion to their number. Strikes and riots in schools, which are at times reported in the press, are more spectacular, but surely not more serious.

Juvenile courts.—In certain places there are juvenile courts to deal with the more serious cases.

There is need of such courts.—(Scranton, 29.)

Discontinued and replaced by action against parents in magistrates' courts.—(New York superintendent's Report (1913), 270.)

It would save time if all reports of truancy were telephoned to the superintendent's office.—(Newburgh, 16.)

Four or five truant schools recommended for Portland, Oreg.—(Portland, 209.)

It seems a brutal, un-American thing to try an adolescent criminal in a criminal court for adults. While the student must obey, and as an experienced teacher once said, "It is the child's right to be compelled to obey," the American spirit demands that he should have deeper hold on the principle of obedience to *law*. In this connection there is much interest in plans for—

Student self-government.—Some form of it now found in all New York high schools.—(New York, Vol. I, 86–87. Similar experiments in high schools of Washington, D. C., and elsewhere; see also accounts of George Junior Republic.)

Cooperation with the home.—Prevention instead of punishment should be the aim. A more intimate acquaintance with the districts and the home might forestall many a violation of the rules:

Paradise Alley, a breeding place for physical and moral disease, that can not be counteracted by medical inspection of the schools, or lesson in civics.—(Greenwich, 9.)

Your committee is informed that some children attend high schools without breakfast.—(Cleveland (1906), 63.)

The home and school should be brought into the closest relation possible.—(Committee of Fifteen, Wisconsin State, 28.)

It is certain that many habits are not formed in the child because the home and school do not cooperate to establish them.—(Upper Peninsula (Mich.) (1914), 7; "Recreation," Springfield, 23.)

Lack of home influence is bad.—(San Francisco, 16.)

Parents' association and mothers' club may be of very great help, according to Rural Colorado, 82; 2d Boise, 23; Rural Illinois, 12; San Francisco, 46; Emporia, 258–259; Baltimore, 106; East Orange, 62.

Parents ought to more carefully supervise their children outside of school hours.—(Upper Peninsula (Mich.) (1914), 5.)

Home and school should cooperate to stop or supervise "social" affairs.—(Springfield, p. 42.)

Secret societies.—These should be prohibited, according to Rochester report (1913), 117; Upper Peninsula (Mich.) (1914), 37; East Orange, 64.

Principals and teachers to be discharged for failure to report existence of secret societies—(New York School Report (1913), 217.)

We also beg leave to intimate to parents that social festivities not infrequently prove to be disintegrating to scholastic purposes and methods.—(Cleveland, 22.)

Superintend all societies. Students should be required to give up membership in secret societies.—(East Orange, 64.)

Religious training.—Through organizations of parents it may be possible to secure greater stimulus for the religious training of adolescent children, especially in the danger period. The need of such training has received scant attention, save in the rural surveys.—(Rural Illinois, 15; Upper Peninsula (Mich.) (1914), 4; Syracuse, 36.)

Segregation of the sexes.—What are its advantages? What its disadvantages?

Segregation may at times be needed.—(Baltimore, 90.)

In high schools of commerce, segregation raises attendance of boys.—(New York, Vol. II, 35.)

Segregation not due to prejudice against coeducation, but to give each pupil that which he needs most.—(Gary, 14.)

Play and recreation.—A right use of the instinct for play, generally strong in adolescence, may prove a most powerful means of wholesome education and a method for prevention of vicious tendencies.

The surveys have given ample attention to this topic.—(See Greenwich, 9; Portland, 271, 221; 2d Boise, 12; Cleveland, 55; Atlanta, 25, 34, 64; Upper Peninsula (Mich.) (1914), 5; "Recreation," Springfield, entire; Maryland Industrial Commission, 15; Pittsburgh, Gist 306; Ohio, 16; Rural Illinois, 8–9–10; Rural Pennsylvania, 15 and 19.)

Systematic attention to way that pupils spend evenings and vacations is necessary for good products in character.—(Rural Illinois, 9; Gary, 16, 17; Cleveland, 53.)

Knowledge of child's life work also a strong means of prevention.—(Nutley, 17.)

THE BALANCE SHEET.

Among the chief items (estimated for 1914) in the public ledger under the caption "High-School Education," is this: "Debit—For the training of 1,250,000 children in 12,000 buildings by 60,000 teachers, $60,000,000."

The items of the credit column are incomplete and "Expectations" are entered as security.

But it must be noted that, at the present rate of increase, in six or seven years the above figures will be doubled. That fact indicates that the American people are giving their confidence, as well as their money and their children, to those schools, and if the spirit and ability of the teachers, superintendents, and school boards will rise to the opportunity, a splendid era of progress for our public high schools is at hand.

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CHAPTER XXVI.

DENOMINATIONAL SCHOOLS.

Compiled by J. O. Knott, Editorial Division, Bureau of Education.

CONTENTS.—General survey—Roman Catholic parish schools—The Lutheran parochial schools—Presbyterian Church schools—The schools of the Mormon Church—Denominational schools for Indians—The church and negro education.

Of the approximately 100,000,000 people in the United States—exclusive of Alaska and the insular possessions—about 40 per cent are reported as church communicants. This estimate of communicants does not include the nearly 2,500,000 Jews in the country, practically all of whom are affiliated with some synagogue.

The Jews in this country conduct only five parochial schools, with an enrollment of less than 1,000 pupils, these out of a total population of school age amounting to about 500,000. All of these five schools are located in New York City, in some of the most congested districts inhabited by immigrants who have arrived in this country only recently. The Jews, however, have an extensive equipment for religious instruction which is given to children attending the public schools of the country after public school hours. Their distinctive religious schools are fully described in the Report of the Commissioner of Education, 1913.[1]

The total Roman Catholic membership in the United States is about 16,000,000.[2] An extended notice of the parochial or parish schools of this church first appeared in the commissioner's report for 1888–89. Since then, from time to time, reports from these schools similar to the one given in this issue have appeared.

The total Lutheran communion in our country is reckoned at about 2,400,000.[3] The parochial schools of this denomination were first noted briefly in the commissioner's report for 1904.[4] The schools were given a special chapter in the report of 1913,[5] and a brief statement also appears this year.

The total Mormon Church membership is given as 356,000. An extended description of these schools appeared in the report of 1913,[6] and a brief report appears again this year.

[1] Rep. Commis. Ed., 1913, ch. 16, p. 365.
[2] See Table 2, p. 602.
[3] H. K. Carroll. Bulletin of church statistics for 1914.
[4] Rep. Commis. Ed., 1904, ch. 15, p. 990.
[5] Ibid, 1913, ch. 17, p. 395.
[6] Ibid, 1913, ch. 17, p. 395.

The 22,000,000 church communicants remaining, representing the bulk of the numerous Protestant denominations in the United States, are doing considerable educational work—much of it of nonsectarian sort—that does not find a place in any of the bureau's publications. For example, the annual sum expended in 1912–13 for current expenses on private and higher education for negroes in the United States amounted to about $4,000,000. Of this sum, the church boards gave approximately one-half. The bulk of this $2,000,000 was given by churches whose work is not reported except in the records of the several denominations.

An attempt, therefore, is made in this chapter to embody the educational efforts of the church as a whole by including not only what the distinctive parochial schools are doing, but also any other specific work not elsewhere reported by this bureau that adds to the sum of attempts to educate the people.

As there are about 186 different religious denominations in the United States, ranging in numbers from a few hundred to over 16,000,000, the reports given in this chapter are necessarily incomplete and cover work done mainly by the larger church boards.

The work of the Young Men's Christian Association was fully set forth in last year's report.[1] The work of the association, with special reference to immigrant education, is given in some detail this year in chapter 20, p. 444.

The work of the churches in behalf of immigrants is given also in chapter 20, p. 446, and will not this year receive further notice.

ROMAN CATHOLIC PARISH SCHOOLS.

By Rev. Patrick J. McCormick, Instructor in Education, Catholic University, Washington, D. C.

In the school year 1913–14 the Catholic parish school system in the United States maintained about the same ratio of growth as in the previous year. With the unusual increase of 913,827 in the Catholic population figures, due to the complete statistics of the Ruthenian Greek Catholics, which were gathered that year for the first time, the schools increased 147 and the pupils 69,098 over the numbers reported for the previous year. The total of schools in all the dioceses of the country was 5,403 and the total of pupils 1,429,859, as compared with 5,256 schools and 1,360,761 pupils in 1912–13. (See Table 2.)

No material changes in administration are to be noted. The personnel of the supervisory officers has been affected by the appointment of the Rev. Augustine F. Hickey, S. T. L., as supervisor of schools in the archdiocese of Boston, in place of the Rev. George A.

[1] Rep. Commis. Ed., 1913, ch. 26, p. 573.

Lyons; and by the appointment of the Rev. Hugo Tell, O. S. B., as superintendent of schools in the diocese of Crookston, in place of the Rev. Gerald Speilman, O. S. B. In the diocese of Columbus the Rev. John P. Curran has become an associate superintendent, with the Rev. John J. Murphy. No assistant superintendent was that year recorded for the diocese of Buffalo. In some dioceses, *e. g.*, Trenton, N. J., the school boards were reorganized, and in some others slight numerical changes were reported in the membership of the boards. (See Table 1.)

The high-school movement continues to spread. Each year brings new evidence of the value of parish high schools in completing the Catholic system, and an indication of the general satisfaction over this growth may be had in the resolution adopted at the Baltimore convention of the American Federation of Catholic Societies, held September 28–October 1:

> We note with satisfaction the multiplication of Catholic high schools, academies, and colleges, the ever-increasing attendance of these institutions, and give our heartiest encouragement to the whole Catholic educational movement.

The opening of the St. Regis High School, New York, in connection with St. Ignatius Church, and under the care of the Jesuit fathers, may be cited as a notable example for the year.

The process of standardization of high schools through affiliation with the Catholic University of America resulted in the addition of 23 institutions to the accredited list during 1913–14. The affiliated high schools reached the number 70. They are distributed over 21 States as follows: Alabama, 1; California, 3; Colorado, 2; Connecticut, 1; Georgia, 2; Illinois, 3; Indiana, 1; Iowa, 1; Kentucky, 3; Massachusetts, 4; Michigan, 2; Minnesota, 1; Missouri, 2; New York, 3; Ohio, 17; Oregon, 1; Pennsylvania, 6; Tennessee, 1; Texas, 10; Washington, 1; Wisconsin, 4.

There should also be noted an increase in the facilities for the improvement of teachers in service by the extension of the summer school movement under university auspices. As in the previous year, summer sessions for teachers were held at Marquette University, Milwaukee, Wis.; De Paul University, Chicago, Ill.; Creighton University, Omaha, Nebr.; and the Catholic University of America, Washington, D. C. The last named, being the summer session of Sisters College, opened at the close of the school year an extension in Dubuque, Iowa, which enrolled 236 students, of whom 221 were teaching sisters.

Tables 1 and 2 are based on data supplied by the Official Catholic Directory, published annually by P. J. Kenedy & Sons, N. Y.

TABLE 1.—*Diocesan school boards and supervising officers.*

[Archdioceses are indicated by an asterisk (*).]

Ecclesiastical province.	Diocese or archdiocese.	Title of governing board and number of members.	Name and title of supervising officer.
Baltimore	*Baltimore	Examiners of teachers (2)	Rev. Lawrence Brown, superintendent (Baltimore city).
		Examiners of schools:	
		For Baltimore (4)	
		For Washington (4)	
		For rural districts (4)	
	Richmond	Examiners of schools:	
		Northern and western district (2)	
		Southern and eastern district (2)	
	Wheeling	Examiners of schools:	
		3 district boards (1, 2, and 2)	
	Wilmington	School board (4)	
Boston	*Boston		Rev. Augustine F. Hickey, S. T. L., supervisor of schools.
	Burlington	School board (3)	
	Fall River	Diocesan school visitors (2)	
	Hartford		Rev. W. J. Fitzgerald, S. T. L., diocesan supervisor of schools.
	Portland	School visitors (4)	
	Providence	Examiners of teachers (3)	
		Examiners of schools (9)	
		School board (2)	
	Springfield		Rev. John F. Conlin, P. R., diocesan school visitor; Rev. P. F. Doyle, assistant diocesan school visitor.
Chicago	Alton	Diocesan school board (6)	
	Belleville	Diocesan school board (6)	
	*Chicago	Diocesan school board (14)	
	Rockford	School board:	
		3 district boards (6, 6, and 4)	
Cincinnati	Columbus	School board (5)	Rev. John J. Murphy and Rev. John P. Curran, superintendents of schools.
	Detroit	Examiners of teachers (7)	
		School board:	
		6 district boards (9, 10, 4, 3, 3, and 4).	
	Fort Wayne	Diocesan school board (9)	Rev. A. E. Lafontaine, superintendent of schools.
	Cleveland		Rev. William A. Kane, superintendent.
	Grand Rapids	School board (5)	
	Louisville	School board (10)	
	Nashville	Examiners of teachers and diocesan school board (6).	
	Toledo	School board (8)	
Dubuque	Davenport	School board:	
		5 district boards (3, 3, 2, 2, and 2).	
	Lincoln	Diocesan school board (5)	
	Omaha	Diocesan examiners of teachers (2)	
		Diocesan school board (12)	
		7 local school boards	
	Sioux City	Diocesan school board (6)	
Milwaukee	Green Bay	Diocesan school board (3)	
	La Crosse	School board (7)	
	Marquette	School commission (6)	
	*Milwaukee	Diocesan school board (9)	
	Superior	School commission (5)	
New Orleans	Dallas		Rev. L. J. Harrington, school examiner.
	Galveston	Diocesan school board (3)	
	Little Rock	Diocesan school board (6)	Rev. Thomas V. Tobin, superintendent.
	*New Orleans	Catholic board of education (16) (11 ecclesiastics, 5 laymen).	Rev. L. J. Kavanagh, superintendent.
New York	Albany	Diocesan school examiners (9)	Rev. Joseph A. Dunney, inspector of schools.
	Brooklyn	Kings County school board (21)	Rev. Joseph D. McKenna, inspector of schools.
		Queens County school board (6)	
		Nassau County school board (5)	
		Suffolk County school board (6)	
	Buffalo	Diocesan school board (7)	Rev. Edmund F. Gibbons, superintendent of parochial schools.

TABLE 1.—*Diocesan school boards and supervising officers*—Continued.

Ecclesiastical province.	Diocese or archdiocese.	Title of governing board and number of members.	Name and title of supervising officer.
New York	Newark	School board (15)	Rev. John A. Dillon, superintendent of schools.
	*New York	New York City and Yonkers school board (19).	Rev. Joseph F. Smith and Rev. Michael J. Larkin, superintendents of schools.
		Westchester County school board (6).	
		Orange and Rockland Counties school board (6).	
		Ulster and Sullivan Counties school board (4).	
		Putnam and Dutchess Counties school board (5).	
	Ogdensburg	School board (7)	
	Rochester	School board (2)	
	Syracuse	School board: 2 district boards (3 and 2)	
	Trenton	Examiners of teachers (4)	Rev. William J. McConnell, superintendent of parochial schools.
		Diocesan school board (23)	
Oregon	*Oregon City	Diocesan school board (6)	Rev. Edwin V. O'Hara, diocesan superintendent of schools.
Philadelphia	Erie		Rev. John M. Gannon, D. D., D. C. L., superintendent of schools.
	Harrisburg	School board (10)	
	*Philadelphia	Diocesan school board (11)	Right Rev. Mgr. P. R. McDevitt, superintendent of parochial schools; Rev. John E. Flood, assistant superintendent.
	Pittsburgh	Examiners of school teachers (8)	Rev. H. C. Boyle, superintendent of schools.
		Diocesan school board (25)	
St. Louis	Concordia	Diocesan school board (5)	
	Kansas City	Diocesan school board (6)	
	Leavenworth	Diocesan school board (9)	
		Diocesan high-school board (3)	
	*St. Louis	Diocesan school board (13)	Rev. A. V. Garthoeffner, superintendent of schools.
	Wichita	Diocesan school board (4)	
St. Paul	Bismarck	Parochial school board (5)	
	Crookston	School board (6)	Rev. Hugo Tell, O. S. B., diocesan superintendent of schools.
	Duluth	School board (9)	
	Fargo		Very Rev. J. Baker, V. G., inspector of schools.
	St. Cloud	Diocesan school board (6)	
	*St. Paul	School board (6)	
	Sioux City	Diocesan school board (6)	
	Winona	School board (7)	
San Francisco	Monterey-Los Angeles.	Inspectors of diocesan schools (8)	
Santa Fe	Denver	School board (5)	

TABLE 2.—*General statistics of parish schools in 1913 and 1914.*

[Archdioceses indicated by asterisk (*).]

Ecclesiastical province.	Dioceses included in province.	1913			1914		
		Catholic population.	Pupils.	Schools.	Catholic population.	Pupils.	Schools.
Baltimore	*Baltimore	260,000	24,000	84	261,000	25,207	91
(Includes Delaware, Maryland, Virginia, West Virginia, North Carolina, South Carolina, Georgia, eastern Florida.)	Charleston (S. C.).	9,650	890	9	9,650	970	8
	Richmond	41,000	4,440	21	41,000	4,205	27
	St. Augustine	37,525	1,856	18	39,270	3,606	18
	Savannah	17,840	3,342	17	18,340	3,567	17
	Wheeling	52,000	3,070	18	55,000	3,411	18
	Wilmington (Del.).	35,000	3,921	13	37,000	4,056	14
	North Carolina	6,702	1,379	15	6,954	1,309	16
Boston	*Boston	900,000	59,293	119	900,000	60,428	122
(Includes Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut.)	Burlington	79,230	6,224	20	80,978	6,356	21
	Fall River	160,000	12,116	29	167,892	12,881	30
	Hartford	423,000	34,514	81	438,483	35,831	82
	Manchester	126,034	16,605	41	130,081	17,214	41
	Portland	123,600	11,454	33	124,400	12,563	42
	Providence	260,000	18,363	36	270,000	19,995	37
	Springfield	323,435	27,451	65	328,000	28,260	65
Chicago	Alton	80,000	9,317	66	80,000	10,113	66
(Includes Illinois.)	Belleville	71,500	10,000	77	71,500	10,226	80
	*Chicago	1,150,000	105,898	227	1,150,000	107,750	247
	Peoria	104,487	11,152	70	106,134	12,505	75
	Rockford	50,000	4,219	26	54,000	4,605	28
Cincinnati	*Cincinnati	200,000	28,596	120	200,000	30,100	120
(Includes Ohio, Indiana, Kentucky, Tennessee, lower Michigan.)	Cleveland	350,000	42,876	138	380,000	44,211	141
	Columbus	93,065	12,229	57	101,179	12,581	57
	Covington	60,300	7,084	38	60,500	7,003	38
	Detroit	342,005	32,779	87	344,000	35,486	89
	Fort Wayne	108,719	16,689	87	112,187	17,831	89
	Grand Rapids	128,000	16,514	75	140,000	16,897	76
	Indianapolis	124,045	17,732	121	127,051	18,379	122
	Louisville	102,928	13,191	71	105,570	13,912	82
	Nashville	18,500	3,605	23	18,500	3,740	23
	Toledo	100,000	14,096	68	100,000	14,716	68
Dubuque	Cheyenne	12,500	108	1	12,750	117	1
(Includes Iowa, Nebraska, Wyoming.)	Davenport	51,175	6,015	44	52,790	5,753	42
	Des Moines	25,000	2,437	17	31,885	2,634	17
	*Dubuque	132,560	25,890	86	132,560	25,890	92
	Kearney	15,195	305	3	11,263	240	2
	Lincoln	27,500	2,000	24	25,746	1,800	28
	Omaha	75,575	9,364	78	78,950	10,675	89
	Sioux City	58,000	7,702	54	59,860	8,025	55
Milwaukee	Green Bay	140,433	18,482	105	146,765	18,590	107
(Includes Wisconsin, northern Michigan.)	La Crosse	117,000	10,308	75	118,300	10,352	77
	Marquette	98,500	7,381	25	98,500	7,688	25
	*Milwaukee	250,000	34,786	152	260,000	35,343	154
	Superior	51,043	4,870	23	53,130	4,654	23
New Orleans	Alexandria	34,000	1,623	16	35,000	1,583	18
(Includes Louisiana, Alabama, Mississippi, Texas, Arkansas, Oklahoma, western Florida.)	Corpus Christi	82,400	1,150	9	84,000	1,500	14
	Dallas	64,000	5,902	37	64,000	6,316	38
	Galveston	65,000	4,407	39	65,000	5,462	39
	Little Rock	23,000	3,385	43	23,000	3,328	42
	Mobile	41,079	4,881	32	42,500	4,955	34
	Natchez	28,578	2,764	19	28,570	4,175	21
	*New Orleans	550,000	16,835	126	550,000	19,640	117
	Oklahoma	35,432	6,078	41	36,578	4,972	38
	San Antonio	95,000	6,598	50	100,000	6,791	60
New York	Albany	201,246	18,302	48	205,000	18,735	51
(Includes New York State, New Jersey.)	Brooklyn	700,000	57,250	80	750,000	71,863	100
	Buffalo	273,000	33,240	125	307,340	34,148	125
	Newark	370,000	53,352	120	425,000	55,294	123
	*New York	1,219,920	82,346	332	1,219,920	83,742	168
	Ogdensburg	95,000	3,795	15	96,000	3,795	17
	Rochester	150,000	19,565	58	155,000	20,711	59
	Syracuse	151,463	9,377	22	151,463	9,904	22
	Trenton	136,000	14,119	46	140,000	13,664	45
Oregon	Baker City	6,400	850	6	6,450	850	6
(Includes Oregon, Washington, Idaho, Montana, Alaska.)	Boise	16,000	1,326	10	16,000	1,500	10
	Great Falls	25,000	885	7	26,500	1,000	9
	Helena	62,000	5,711	21	95,000	5,700	14
	*Oregon City	60,000	5,200	40	60,000	4,382	44
	Seattle	90,000	5,852	34	98,000	6,467	40
	Alaska	11,500	301	7	11,500	376	8

TABLE 2.—*General statistics of parish schools in 1913 and 1914*—Continued.

Ecclesiastical province.	Dioceses included in province.	1913			1914		
		Catholic population.	Pupils.	Schools.	Catholic population.	Pupils.	Schools.
Philadelphia (Includes Pennsylvania.)	Altoona	92,810	8,827	34	92,810	8,735	35
	Erie	125,000	11,257	45	125,000	11,692	47
	Harrisburg	55,543	9,000	40	58,410	8,892	40
	*Philadelphia	605,000	65,312	149	650,000	71,833	154
	Pittsburgh	480,000	46,261	150	480,000	50,772	166
	Scranton	275,000	17,750	73	278,000	18,130	84
St. Louis (Includes Missouri, Kansas.)	Concordia	29,000	3,911	35	28,200	3,455	32
	Kansas City	60,000	6,479	48	60,000	5,678	52
	Leavenworth	70,000	6,150	53	70,000	7,083	51
	St. Joseph	35,000	3,019	24	35,000	3,006	25
	*St. Louis	375,000	30,065	164	375,000	33,844	164
	Wichita	32,000	2,819	34	32,500	2,958	36
St. Paul (Includes Minnesota, South Dakota, North Dakota.)	Bismarck	30,000	1,462	9	31,000	1,812	9
	Crookston	21,147	995	7	21,250	760	5
	Duluth	38,650	1,700	9	43,200	2,185	9
	Fargo	69,871	1,624	15	69,871	1,888	17
	Lead	18,000	841	6	16,000	841	8
	St. Cloud	65,000	4,000	23	65,500	3,000	22
	*St. Paul	265,000	22,100	93	265,000	22,351	93
	Sioux Falls	55,000	3,565	27	55,000	3,859	29
	Winona	65,000	7,000	30	67,000	6,110	29
San Francisco (Includes California, Nevada, Utah.)	Monterey and Los Angeles.	103,000	8,467	31	110,000	9,280	38
	Sacramento	48,500	1,058	9	50,000	2,050	11
	Salt Lake	12,000	273	4	13,000	898	7
	*San Francisco	252,000	15,491	46	250,000	13,900	46
Santa Fe (Includes Colorado, Arizona, New Mexico.)	Denver	105,000	6,679	27	109,182	6,550	27
	*Santa Fe	140,573	3,019	19	140,573	4,415	21
	Tucson	52,000	2,000	10	55,000	1,730	10
Ruthenian-Greek					500,000		120
Total		15,154,158	1,360,761	5,256	16,067,985	1,429,859	5,403

THE LUTHERAN PAROCHIAL SCHOOLS.

By W. H. T. Dau, Professor, Concordia Seminary, St. Louis, Mo.

Since the last report the Lutheran parochial school of the country has made some gains, but has also suffered losses. The work of training teachers at the various seminaries, indeed, goes on with unabated zeal. The beautiful seminary of the Missouri Synod, which was reported in a previous account, suffered the loss by fire of its administration building three months after its dedication. This building has now been replaced. To the large school of St. Paul's congregation at Fort Wayne a high-school grade has been added, and a school of about the same dimensions has been erected by Holy Cross congregation at St. Louis.

The latest published statistics available on the status of Lutheran parochial schools (January, 1914) credit the Mississippi Synod, one of the synods which have become federated in the United Synod in the South, with 1 school, 2 teachers, and 119 pupils. The United Synod in the South had not reported any schools heretofore. This synod now numbers 69,603 baptized and 50,819 communicant members.

However, from the oldest of the general bodies of the American Lutheran Church, the General Synod, the parochial school has now

entirely disappeared. The only one of the component parts of this synod, the Wartburg Synod (German), which was credited with 30 parochial schools, 2 teachers, and 500 pupils, does not now report any teachers, schools, or pupils.[1]

The present membership of the General Council is 766,623 baptized and 493,279 communicant members. In this body there has been an increase of schools and pupils, but a decrease of teachers. The present figures are 593 schools, 690 teachers, and 26,067 pupils.

Distributed among the various synods composing this general body, these totals divide, as follows: Ministerium of Pennsylvania, 13 schools, 22 teachers, 2,120 pupils; Ministerium of New York, 77 schools, 41 teachers, 3,295 pupils; Swedish Augustana Synod, 446 schools, 598 teachers, 18,927 pupils; Synod of Canada, 37 schools, 22 teachers, 810 pupils; Manitoba Synod, 16 schools and 728 pupils; Pacific Synod, 3 schools and 118 pupils; Synod of New York and New England, 1 school, 7 teachers, 69 pupils. Two synods in this body, the Synod of Canada and the Manitoba Synod, operate outside of the United States. Deducting the figures with which these bodies have been credited, we obtain the following totals for the General Council: 540 schools, 668 teachers, 24,529 pupils. In other words, the parochial school as regards schools and teachers has lost ground in the United States territory of the General Council, but has gained slightly in pupils.

The most significant changes in the synods belonging to the General Council and operating in the United States are in the oldest Lutheran Synod in America, the Ministerium of Pennsylvania, which has lost 23 schools, 53 teachers, and 50 pupils. The probable explanation is that schools which were taught by pastors in this body have been abandoned or have not been counted. The Ministerium of New York, since the last report, lost 7 schools, 4 teachers, 176 pupils. However, there was a gain of 2 schools, 4 teachers, 325 pupils in the Swedish Augustana Synod. The Pacific Synod gained 1 school and 83 pupils, but lost its 2 teachers. The Synod of New York and New England lost 2 schools, 12 teachers, 74 pupils.

Of the 14 independent Lutheran bodies, now numbering 1,083,141 baptized and 672,150 communicant members, only the Icelandic Synod makes no report on parochial schools. The totals for the remaining 13 bodies have changed since the last report from 2,644 to 1,426 schools, from 1,524 to 1,986 teachers, and from 97,868 to 78,981 pupils. As in the last report, these figures include schools which some of the bodies operate in Canada, together with pastors who serve as teachers. It has been impossible to eliminate these features from the totals. There is a loss, then, in the independent

[1] This might be due to an oversight on the part of the reporting officer, but the report from this body is complete on all other points.

Lutheran synods of 1,218 schools and of 18,887 pupils, while there is a gain of 462 teachers. This gain is explained chiefly by the fact that the Norwegian Synod, from which there were only estimated figures (200 teachers) available at the time of the last report, now reports 527 teachers. The other changes, except in the number of schools, are probably due to more accurate counting.

The gains and losses just noted are distributed among the various independent synods, as follows:

The Ohio Synod has increased from 265 to 285 schools, from 116 to 122 teachers, and from 9,354 to 9,708 pupils. In this synod there is still a strong German element; in fact, the synod is German.

Conditions in the German Buffalo, the Norwegian Eielson, and the German Texas Synod remain unchanged.

Hauge's Norwegian Synod has increased from 181 to 185 schools, but remained stationary in the number of pupils.

The German Iowa Synod has decreased from 731 to 500 schools and from 11,910 to 11,448 pupils, but has increased its 34 teachers by one.

In the Danish Lutheran Church the number of schools and pupils remains the same, but the number of teachers has dropped from 96 to 52.

The German Immanuel Synod has increased from 7 to 11 schools, from 7 to 11 teachers, and from 160 to 702 pupils.

The Finnish Suomi Synod has increased from 47 to 49 schools, from 52 to 53 teachers, but decreased from 2,537 to 2,175 pupils.

The United Norwegian Synod fails to report the number of its schools. In the last report it was credited with 1,000 schools. Its number of teachers has decreased from 987 to 941 and its number of pupils from 50,584 to 36,500.

The United Danish Church has had its 111 schools reduced to 89. The number of its teachers and pupils is not given in the new report.

The Norwegian Lutheran Free Church has had an increase all along the line from 118 to 185 schools, from 210 to 220 teachers, and from 9,575 to 9,700 pupils.

The insufficient and incomplete statistics available from the independent synods prove very disturbing in any effort to arrive at an adequate estimate of the present strength of the Lutheran parochial schools of the country. The omission of the number of schools from the report of the United Norwegian Church is especially annoying. Plainly the 941 teachers in this body must have schools that they teach, and the 36,500 pupils in this body must have schools that they attend. This omission has cut down the number of schools 1,000. It is necessary to bear this in mind when the new averages are given and, in general, when one tries to form an opinion of what

the Lutherans are actually achieving at the present time in their parochial school work.

In the synods composing the Synodical Conference there has been an increase in schools, teachers, and pupils.

In the Missouri Synod, which now numbers 949,771 baptized or 575,299 communicant members, the number of schools has increased from 2,216 to 2,259, of male teachers from 1,069 to 1,097, of female teachers from 252 to 274, and of pastors serving as teachers from 1,166 to 1,192. Hence the teaching force in this body has risen from 2,487 to 2,563. The number of pupils has increased from 94,167 to 96,287.

The 290 schools and 32,825 pupils of the Wisconsin Synod have increased to 318 schools and 35,875 pupils. The number of teachers (118) has remained the same. This body now numbers 190,217 baptized or 175,624 communicant members.

The Minnesota Synod, which now numbers 97,271 baptized and 48,114 communicant members, has reduced its 155 schools by 1. The number of its teachers (26) has remained the same, while the number of its pupils has increased from 15,940 to 16,121.

The District Synod of Michigan, now numbering 21,673 baptized and 15,514 communicant members, reports the old number of schools, 75, but has increased its teachers from 7 to 9 and its pupils from 2,933 to 3,021.

In the District Synod of Nebraska, with a baptized membership of 20,105 and a communicant membership of 11,108, the increases are as follows: Schools, from 25 to 30; teachers, from 4 to 5; pupils, from 995 to 1,085.

The baptized membership of the Slovak Synod at present is 20,285 and its communicant membership 15,631. This synod reports the same number of schools (25) as in the last report, but has added 2 teachers (in the last report there were none), and its 1,530 pupils have increased to 8,821.

For the entire Synodical Conference the present totals are 2,861 schools, 2,723 teachers, including pastors who teach school, and 154,210 pupils. The increases are 75 schools, 55 teachers (not counting pastors teaching school), and 5,820 pupils.

The grand total for the Lutheran Church in the United States is 4,881 schools, a decrease of 1,002 schools, including the omission in the report from the United Norwegian Church, 3,825 teachers, an increase of 67, and 259,467 pupils, a decrease of 13,447.

The baptized membership of the Lutheran Church in the United States is now given at 3,638,951 (increase of 105,541), and the communicant membership at 2,376,769 (increase of 59,592). The difference between these two figures, 1,262,182 (increase of 46,159), shows approximately the number of Lutheran children from infancy to the

age of their admission to communion, about the age of 14 or 15. Accordingly the 259,467 pupils of the Lutheran parochial schools represent 20.55 per cent of the child population of the Lutheran Church, a loss of 1.89 per cent. In other words, out of 100 Lutheran children 20 attend a parochial school, while 80, including infants and children up to the age of 6, do not.

For the various general bodies these averages are: United Synod in the South, 0.63 per cent; General Council, 9.53 per cent; independent synods, 19.21 per cent; Synodical Conference, 33.66 per cent.

PRESBYTERIAN CHURCH SCHOOLS.

By Marshall C. Allaben, Superintendent, School Department, Board of Home Missions of the Presbyterian Church.

A complete account of the educational work of the Presbyterian Church would include the tasks committed to its board of education (for ministerial students) and to its college board. The present report has to do with the church's schools for children in the primary and secondary schools maintained and administered, save in rare instances, by the woman's board of home missions, and established only among exceptional populations shut out by some barrier of race, language, or environment from ordinary means of education.

The school curriculum keeps in view the development of community leadership, with the belief that the spiritual, industrial, and cultural phases of education are all essential to this end. The general program emphasizes vocational training, although from lack of facilities this part of the work has not yet reached the high standard set for it.

Mission day-school work began in 1877, soon to be supplemented by boarding schools in which the pupils could be continuously under Christian influence and training.

A frequent result of mission school work is a general awakening of intelligence that raises the standards of the community, thus leading to the development of the public school and the consequent discontinuance of the mission day school. Efforts are then concentrated upon boarding school or community work. The desire is to cooperate with the public-school authorities, and when for reasons given above the mission school is withdrawn the community service continued by the board is planned to supplement the regular work of the public school.

Alaska.—Presbyterian work in Alaska is represented by the Sheldon Jackson School at Sitka, with its six well-equipped buildings, providing an all-round Christian education for Alaskan youth of all tribes. The course of study covers eight grades, including systematic Bible instruction. There are departments of domestic science, domestic art, carpentry and boat building, electric and machine work.

Indians.—Instruction for Indians now centers in the boarding schools. These are at Tucson, Ariz., for Pimas and Papagos; at Wolf Point, Mont., for Assinoboines-Sioux; at Dwight and Elm Spring, Okla., for Cherokees; at Ganado, Ariz., for Navajos; and at North Fork, Cal., for Mono girls. Excepting the one last named, these schools are coeducational. The training school at Dwight is the only one with high-school work.

Mexican-Americans.—Day schools in the isolated New Mexico plazas supply a crying need, and from them the more ambitious pupils enter the Menaul boarding school, for boys, at Albuquerque, or the Allison-James, for girls, at Santa Fe. Graduates from these schools become leaders among their own people as citizens or home makers. In Colorado there are two other plaza schools, and at Los Angeles, Cal., a boarding school for Spanish-American girls.

Utah.—Some day schools of former days in Utah have been withdrawn. Of the four now maintained, the academy at Ferron is the most promising. Many day pupils are enrolled in the two boarding academies erected at strategic points. New Jersey Academy, for girls, is far north in the Cache Valley; Wasatch Academy (coeducational), at Mount Pleasant, near the center of the State, has been recently enlarged and developed, providing for about 100 boarders.

Mountain field.—We have 2 boarding schools in Kentucky, 5 day schools and 1 boarding school in Tennessee, and 1 boarding school (for girls only) in the Coal River Valley, W. Va. In North Carolina our school work has extended over 35 years, reaching farther back each year into the mountain coves and isolated places. It is represented now by 7 boarding schools, several rural day schools having been recently discontinued or transferred to another department of home mission work. One of these boarding schools, the Normal and Collegiate Institute, Asheville, N. C., as the school of the highest grade in the system, had students during the past year from all but one of the other boarding schools for girls, and at least 70 pupils connected with other mountain boarding or day schools. Of 346 normal and collegiate graduates within 21 years, 240 have become teachers.

Porto Rico and Cuba.—Nine day schools in Porto Rico and Cuba, enrolling about 900 pupils, are the outcome of work begun at the close of the Spanish-American War. In several places there is a gradual transference of emphasis from the day school to industrial and community work.

Immigrant communities.—The Presbyterian schools in immigrant communities are on a different basis from others, the work being administered locally, although the funds pass through the hands of

the board. Organized effort for Slavs, Bohemians, Hungarians, and other foreigners has been recorded, but the day school and community work are so blended that they can not well be differentiated in a brief report.

Presbyterian schools under the Woman's Board of Home Missions.

(Excepting those in immigrant communities.)

"Exceptional populations."	Boarding schools.	Day schools.	Total.	Commissioned workers.	Enrollment.		
					Boarding schools.	Day schools.	Total.
Alaskans	1	.....	1	16	136	.....	136
Indians	6	1	7	39	350	22	372
Mexicans	3	12	15	51	280	765	1,045
Mormons	2	4	6	33	247	196	443
Southern mountaineers	11	5	16	90	1,116	357	1,473
Porto Ricans and Cubans	.....	9	9	23	.....	959	959
Immigrant communities[1]	.....	.....	.....	.....	.....	.....	.....
Total	23	31	54	253	2,229	2,299	4,528

[1] Statistics not on file.

THE SCHOOLS OF THE MORMON CHURCH.

By Horace H. Cummings, General Superintendent, Latter-day Saints Schools.

The academies of the Latter-day Saints are all high schools, and nearly all of them give a four years' course parallel with that provided for the State high schools. The teachers must have a college degree or equivalent education, and the textbooks used are in most cases the same as those of the respective States in which the schools are located. To be graduated, a student must have at least 15 units of credit, each one representing at least 7,200 minutes of class recitation with appropriate preparation, but in most cases 8,200 minutes of class work are required. Two hours of laboratory work equal one hour of recitation. Most of the schools offer courses in manual training, agriculture, domestic science, domestic art, and commercial work, besides the regular high-school subjects usually given. Three of the schools are doing college work.

To meet the needs of the church of the Latter-day Saints, all the schools giving a full four years' high-school course include work in education, and all of the college work is similarly directed. The church has so many educational organizations, whose teachers are volunteers, that a vast number of teachers are required.

The Latter-day Saints' schools were never in better condition than during the year 1913–14. The following table of statistics will give an idea of the nature and extent of the work:

Report of the schools of the Latter-day Saints, for year ending June 30, 1914.

	Pupils.		Teachers.		Graduates.	Cost of maintenance.	Value of plant.
	Male.	Female.	Male.	Female.			
Brigham Young University, Provo, Utah	767	530	49	22	149	$126,913.01	$479,380.00
Brigham Young College, Logan, Utah	443	384	18	14	74	50,474.28	183,403.24
Latter Day Saints University, Salt Lake City, Utah	734	625	43	15	84	75,697.27	272,000.00
Big Horn Academy, Cowley, Wyo	93	71	4	1	.....	5,698.45	[1] 960.00
Cassia Academy, Oakley, Idaho	74	54	4	2	4	9,187.91	40,002.93
Emery Academy, Castle Dale, Utah	58	42	5	2	.....	10,660.80	40,105.82
Fielding Academy, Paris, Idaho	112	104	6	4	31	11,539.98	58,500.00
Gila Academy, Thatcher, Ariz	88	113	6	2	28	10,060.17	37,100.00
Knight Academy, Raymond, Alberta, Canada	108	92	5	2	8	9,266.20	49,533.92
Murdock Academy, Beaver, Utah	111	99	6	3	24	47,971.90	75,500.00
Millard Academy, Hinckley, Utah	74	101	6	2	14	[2] 10,576.31	38,000.00
Oneida Stake Academy, Preston, Idaho	136	75	9	1	16	11,676.01	53,400.00
Ricks Academy, Rexburg, Idaho	202	145	9	4	31	22,265.51	80,200.00
San Luis Academy, Manassa, Colo	41	38	5	2	10	5,845.49	2,600.00
Snow Academy, Ephraim, Utah	252	145	13	3	32	17,121.82	85,200.00
Snowflake Academy, Snowflake, Ariz	70	48	5	2	14	17,447.64	39,408.58
St. George Academy, St. George, Utah	133	140	7	5	44	11,503.96	58,533.36
St. Johns Academy, St. Johns, Ariz	62	51	5	1	2	6,205.03	14,425.00
Uintah Academy, Vernal, Utah	73	141	5	2	.....	8,036.53	46,000.00
Weber Academy, Ogden, Utah	218	448	11	10	48	30,466.68	86,000.00
Total	3,856	3,159	221	99	613	498,613.75	1,740,252.85

[1] Schoolhouse under construction; have rented hitherto.
[2] Estimated; books were all burned.

DENOMINATIONAL SCHOOLS FOR INDIANS.

By C. F. Hauke, Second Assistant Commissioner of Indian Affairs.

The attached statement gives the mission schools on Indian reservations under the control of the various denominations, and the total enrollment of each denomination, as shown by the records of the Indian Office. This list does not represent all the work done by the different denominations and societies interested in Indians, however; it is estimated that there are probably as many more schools not shown in the records of the office. The Indian Office is glad to receive the assistance of any religious denomination in the education of Indian children, and wherever Indians are receiving all necessary attention from such sources the office does not request reports from them.

Indian children in mission and private schools.

States and superintendencies.	School.	Contract boarding.	Noncontract.		Total children.	Remarks.
			Boarding.	Day.		
Arizona:						
Fort Apache	Cibecue			16	765	Evangelical Lutheran.
	East Fork			21		Do.
Leupp	Tolchaco		25			Mission; independent.
Navajo	Ganado			30		Presbyterian.
	Rehoboth		54			Christian Reformed.
	St. Michael's		140			Catholic.
Pima	St. Ann's (Guadalupe)			38		Do.
	St. John's		236			Do.
San Carlos	Rice			21		Evangelical Lutheran.
	Globe			41		Do.
San Xavier	Tucson		143			Presbyterian.
California:						
Malki	St. Boniface		113		113	Catholic.
Idaho:						
Coeur d'Alene	De Smet		82		161	Do.
Fort Hall	Good Shepherd		25			Episcopal.
Fort Lapwai	St. Joseph's		54			Catholic.
Michigan:						
Chippewa, Lake Superior.	Baraga (Holy Name)		82		196	Do.
	Harbor Springs (Holy Childhood).		114			Do.
Minnesota:						
Red Lake	St. Mary's		90		200	Do.
White Earth	St. Benedict's		110			Do.
Montana:						
Blackfeet	Holy Family		131		666	Do.
Crow	Lodge Grass		35			Baptist.
	Black Lodge			20		American Missionary Association (Congregational.)
	Reno			32		Do.
	St. Anne's			13		Catholic.
	San Xavier		53			Do.
	Wyola			16		Baptist.
Flathead	St. Ignatius		168			Catholic.
Fort Belknap	St. Paul's		104			Do.
Fort Peck	Wolf Point		55			Presbyterian.
Tongue River	St. Labre's	39				Catholic.
Nebraska:						
Santee	Santee Normal Training.		99		127	Congregational.
Winnebago	St. Augustine		28			Catholic.
New Mexico:						
Albuquerque Pueblo	Bernalillo		96		358	Do.
San Juan	Liberty (Jewett)		28			Presbyterian.
	Navajo Mission		31			Methodist Episcopal.
Santa Fe	St. Catherine's		183			Catholic.
Zuni	Christian Reformed			20		Christian Reformed.
North Dakota:						
Fort Berthold	Congregational		11		73	Congregational.
Standing Rock	St. Elizabeths		62			Episcopal.
Oklahoma:						
Cheyenne and Arapaho	St. Lukes			60	857	Do.
Kiowa	Red Stone			23		Mission.
	Cache Creek		12			Reformed Presbyterian.
Osage	St. Louis [1]	60				Catholic.
Shawnee	Sacred Head (St. Benedicts) [1].		55			Do.
	Sacred Head (St. Marys).		100			Do.
Five Civilized Tribes—						
Choctaw Nation	Old Goodland	88				Presbyterian.
	St. Agnes Mission	56				Catholic.
Chickasaw Nation	El Meta Bond College	24				Private.
	Murray School of Agriculture.	90				Do.
Choctaw and Chickasaw Nations	Oklahoma Presbyterian College.	55				Presbyterian.
	St. Agnes Academy	146				Catholic.
	St. Elizabeths	72				Do.
	St. Joseph's	16				Do.

[1] These schools are filled by Indian pupils from various tribes and reservations.

Indian children in mission and public schools—Continued.

States and superintendencies.	School.	Contract boarding.	Noncontract.		Total children.	Remarks.
			Boarding.	Day.		
Oregon:						
Umatilla	St. Andrews (Kate Drexel).		81		81	Catholic.
South Dakota:						
Cheyenne River	Oahe		18		653	Congregational.
Crow Creek	Immaculate Conception.	48				Catholic.
Pine Ridge	Holy Rosary	237				Do.
Rosebud	St. Marys		71			Do.
	St. Francis	279				Do.
Washington:						
Colville	Sacred Head Academy		31		237	Do.
	St. Mary's		96			Do.
Cushman	St. Georges		110			Do.
Wisconsin:						
Keshena	St. Josephs	179			333	Do.
La Pointe	Bayfield (Holy Family).		9			Do.
	Odanah (St. Marys)		113			Do.
Oneida	Adventist Mission			12		Seventh Day Adventists.
	Hobart Mission			20		Episcopal.
Wyoming:						
Shoshone	St. Stephens	104			123	Catholic.
	Shoshone Mission		19			Episcopal.
Grand total		1,493	3,067	383	4,943	

Enrollment in mission Indian schools by denominations.

American Missionary Association (Congregational)	52	Evangelical Lutheran	99
Baptist	51	Independent	139
Congregational	128	Methodist Episcopal	31
Christian Reform	74	Presbyterian	434
Catholic	3,737	Seventh-day Adventist	12
Episcopalian	186	Total	4,943

THE CHURCH AND NEGRO EDUCATION.

There are four general agencies that are sustaining, and to more or less extent supervising, negro higher education and secondary schools, viz, the Federal Government, the State governments, the several educational funds which are giving financial assistance, and the boards and societies of religious denominations.

According to the Negro Year Book [1] for 1914–15, there are in the United States about 427 negro schools other than elementary public schools and public high schools, or those in any sense under Government and State control. Of these, 57 are put down as colleges and universities—all but 3 of which are avowedly denominational. Of the 16 institutions for negro women only, all but 3 are credited to some denomination. There are 354 normal, industrial, and private

[1] Negro Year Book for 1914–15, by Monroe N. Work.

schools, all but 80 of which are denominational. Many of the negro schools catalogued as nonsectarian are largely aided by the various religious bodies.

Of the estimated $2,000,000 spent during 1912–13 on negro education, statistics show that the Methodist Episcopal Church gave $412,303; the Congregational Church, through the American Missionary Association, gave $298,371; the Presbyterian churches, $248,106; the Baptist churches, $84,022; and the Protestant Episcopal Church, $68,501. The remaining estimated $888,697 is divided mainly among the following denominations: The Roman Catholics, the Colored Baptist Association, the African Methodist Episcopal Church, the Disciples of Christ, the Colored Methodist Episcopal Church, the Methodist Episcopal Church South, the Lutheran Church, the Society of Friends, and the Seventh-day Adventists.

As typical church organizations doing extensive work among negroes, the following are given: The American Missionary Association (Congregational) has 65 schools (31 of them given as elementary), 12,097 students, $1,310,542 invested in school plants, and a permanent endowment fund of $2,016,861.[1] The Freedmen's Aid Society (Methodist Episcopal) has 22 schools (none given as elementary), 6,588 students, $1,457,476 invested in school plants, and an endowment of $291,646. The American Baptist Home Mission Board has 24 schools (none put down as elementary), 7,351 students, $1,261,000 invested in school plants, with $436,340 in permanent endowment. The Board of Missions for Freedmen (Presbyterian) has 136 schools (112 given as elementary), 16,427 students, $939,200 invested in school plants, and $205,202 in permanent endowment.[2]

The secretaries of the various church boards at their semiannual meeting in Washington, D. C.,[3] laid definite plans for the future in the following particulars: As far as possible there would be in future no duplications between private and public schools; sham education would not be condoned, and the various negro schools would be standardized; the denominations would act in concert in preventing schools under different denominational control from occupying the same territory. It was agreed among the representatives of the several churches of the conference that where two schools were unnecessary in the same section, the weaker would withdraw in favor of the stronger, or take some department of the school and thus work in harmony with the body controlling the school.

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[1] This includes the Daniel Hand Fund, which the association administers.

[2] Work's Negro Year Book for 1914–15, pp. 215–16.

[3] Feb. 2, 1915.

CHAPTER XXVII.

EDUCATIONAL ORGANIZATIONS.[1]

By Henry R. Evans,
Editorial Division, Bureau of Education.

Contents.—National Education Association (Department of Superintendence; National Council of Education)—National Society for the Study of Education—Association of Collegiate Alumnæ—Association of History Teachers of the Middle States and Maryland—Association of Colleges and Secondary Schools of the Southern States—Catholic Educational Association—American Institute of Instruction—American Association for the Advancement of Science, Section L—National League of Compulsory Education—Conference on the Education of Backward, Truant, Delinquent, and Dependent children—National Association of School Accounting Officers—General Education Board—Report of Secretary of the National Education Association.

NATIONAL EDUCATION ASSOCIATION.[2]

The fifty-second annual convention of the National Education Association was held at St. Paul, Minn., July 4–11, 1914. The presidential address of the year was delivered by Joseph Swain, president of Swarthmore College, Pennsylvania, his subject being "The relation of the teacher to American citizenship." The address was a plea for making the teacher more influential and more efficient by elevating his calling to the dignity of a profession. He advocated a living wage for teachers, a system of retirement allowances, a sabbatical year's leave of absence for travel for teachers in the lower schools, and more positions as superintendents, principals, and boards of control for women engaged in teaching. President Swain's address was followed by a paper entitled "The responsibility of American educators in the solution of America's oriental problem," by Sidney L. Gulick, professor in Doshisha University and lecturer in Imperial University at Kyoto, Japan. Mrs. Lois K. Mathews, of the University of Wisconsin, spoke on "Training women for social responsibility" by directly teaching in the colleges the necessity of social service and by developing a sense of social responsibility. An active discussion took place on the subject of teachers' salaries and pensions, which was participated in by President Charles W. Dabney, University of Cincinnati; Grace C. Strachan, of Brooklyn, N. Y.; and Walter I. Hamilton, of Boston, Mass. The committee on teachers' salaries and the cost of living, through its chairman, Joseph Swain, announced that its report

[1] Accounts of other educational meetings are given in special chapters.

[2] For business report see p. 631.

this year had been published by the U. S. Bureau of Education as Bulletin No. 16, 1914, under the title "Tangible Rewards of Teaching." The committee also presented a supplementary report on "The public school teacher and the standard of living," prepared by Scott Nearing, of the University of Pennsylvania. Dr. Nearing said:

> There is probably no group of the population which is harder pressed by the necessary cost of living than are the school teachers. Teachers are unable to make provision for exigencies. Their salaries are not sufficient to enable them to save adequate sums against ill health and old age. Be it said, by way of explanation, that ill health is alarmingly prevalent among school teachers.

He urged teachers as a body "to face the issue squarely, discover the cost of a fair standard of living, and insist that the teaching profession receive salaries high enough to enable them to pay for that standard."

The general topic of principles and aims of education enlisted the attention of educators at the fourth session. President Alexander Meiklejohn, of Amherst College, Mass., read a paper on "The purpose of the liberal college," in which he explained its function, its place in a complete system of education, and its vocational as well as general educational efficiency.

At the fifth session, which was devoted to a discussion of the general topic, "Education in a democracy," Dr. P. P. Claxton, United States Commissioner of Education, spoke on "Organization of education for democracy."

Edward A. Ross, of the University of Wisconsin, read a paper on "Education for social service," in which he said that "the social service that is supreme is not some bit of charitable work, but the following of one's calling as a service, not as an exploit."

At the closing session interesting addresses were delivered on the needs of the public schools. John W. Cook, of De Kalb, Ill., discussed the professionally prepared teachers without whom no true progress can be made, and urged the multiplication of professional schools of pedagogy. President L. D. Harvey, of Stout Institute, Wis., spoke on "Systematic education for those pupils leaving school too soon." He deplored the condition of the children who leave school at the fifth, sixth, and seventh grades without a complete foundation in the three R's and without hope of attaining any marketable knowledge or industrial skill.

Great interest was manifested in the various departments, particularly in that devoted to vocational education. The committee on vocational education and vocational guidance, through its chairman, Robert J. Fuller, of North Attleboro, Mass., reported the result of its labors regarding the preparation of a terminology in vocational education. Arthur L. Williston, president of the department, delivered

an address entitled "Should manual training and technical high schools abandon their general and college preparatory aims and become efficient secondary schools of applied science?" To make the typical practical arts high school into an efficient secondary school of applied science, he advocated the following essential changes: (1) Elimination of all foreign languages; (2) confining the instruction almost exclusively to the laboratory method; (3) only such boys to be admitted to the school as have some reasonable likelihood of entering occupations directly or indirectly related to industry after they leave the school; (4) lengthening the school day in order to provide time for new types of laboratory work and more constructive drawing and design; (5) one recitation and one double laboratory period every day during the entire four years for applied science and its applications to the various branches of industry. At least a double period every day should be devoted to shop practice and drawing, and in the latter part of the course, even more time for constructive drawing and genuine design. English, history, economics, and pure and applied mathematics should occupy the balance of the time. Mr. Williston laid emphasis on applied science and the applied science laboratory as the backbone of the school curriculum.

DEPARTMENT OF SUPERINTENDENCE OF THE NATIONAL EDUCATION ASSOCIATION.

The department of superintendence of the National Education Association, together with its 16 affiliated societies, convened in Richmond, Va., February 23–28, 1914. The meeting was distinguished by the spirit of scientific investigation, which was displayed in the papers presented for consideration. David Snedden and William C. Bagley discussed the subject of "Fundamental distinctions between liberal and vocational education" in papers that represent notable contributions to the current vocational problem.

The subjects of school and shop work, the apprentice schools of the Santa Fe Railway System, and trade schools were discussed. The report of the committee on "Economy of time in education" was rendered by the chairman, Harry B. Wilson, of Topeka, Kans. The report urged the testing out of various plans for economizing time as they may come to the attention of those in administrative positions. Walter A. Jessup, of the State University of Iowa, presented a paper illustrated with graphic statistics, on "Economy of time in arithmetic," in which he called attention to the strong disposition "to favor increased emphasis on the application of arithmetic to the social and economic conditions of the day, such as saving and loaning of money, taxation, public expenditures, life insurance, etc." Elwood P. Cubberley, of Leland Stanford Junior University, and Edward C. Elliott, of the University of Wisconsin, presented a

joint paper on "Rural school administration," which recommended radical changes in rural schools. They said:

> This will involve a county unit of organization, administration, and finances; the election of a lay county board of education, analogous to a city board of education, to select the experts and to determine the larger questions of policy and procedure; the substitution of an appointed for an elected superintendent, and the reorganization of the county administrative office along the lines of the best city adminstrative experience; a redirection of the instruction to meet modern educational needs; and the training of a body of teachers for rural work who can and will render community as well as educational service.

They thought that counties refusing to place their school systems on a proper educational fundation should be penalized by "a reduction of the apportionment of State funds to no more than would be demanded for the same educational facilities now provided if regrouped under a proper educational reorganization."

At the closing session, Wallace Buttrick, secretary of the General Education Board, New York City, described the work of the board.

Resolutions were passed indorsing the movement to establish and sustain vocational schools for pupils over 14 years of age, likewise the founding of continuation schools for boys and girls between the ages of 14 and 18 years who have entered vocational life. It was recommended that attendance upon such continuation schools be made compulsory for boys and girls between the ages of 14 and 16.

It was urged that every rural school should provide a home, including a small farm, for the teacher. The importance of the proper teaching of sex hygiene was emphasized, the ideal place for imparting such instruction being the home. "If instruction in sex hygiene is to be given in school at all it should be given not to classes but to individuals, and by teachers specially qualified for such work."

NATIONAL COUNCIL OF EDUCATION.

The National Council of Education at its meeting in Richmond, Va., February 23–24, 1914, discussed the topic of "Health problems in the American public schools," under two heads: (1) Plans for promoting improvement in the sanitation of rural schools; (2) Supervision and care of personal health of pupils in rural schools. The report of the committee on "Tests and standards of efficiency in schools and schools systems—A brief statement concerning the purpose, nature, and conduct of school surveys" was made by the chairman, George D. Strayer, of Teachers College, Columbia University, New York City.

The topic of sex hygiene was fully treated at this meeting. Educational surveys also received attention.

At the meeting of the council in St. Paul, Minn., July 4–8, 1914, the problem of "Cooperating forces for the improvement of rural

school conditions" was presented. The topics of "Superintendent problems"; "Harmonizing vocational and cultural education"; and "Economy of time in education" were considered. Arthur H. Chamberlain, of California, made a strong plea for the substitution of the county for the district unit in country schools and a change in the manner of electing superintendents. Supt. John W. Carr, of Bayonne, N. J., dwelt on the need of a more efficient standard for the superintendency and of better methods of supervision, pointing to more scientific programs of study, exact measurements of teaching results, and a higher educational standard. He said there was little inducement for a person to prepare thoroughly for the position of city superintendent if the tenure was insecure.

NATIONAL SOCIETY FOR THE STUDY OF EDUCATION.

The National Society for the Study of Education met at Richmond, Va., February 23, 1914, on which occasion there was an animated discussion of the thirteenth yearbook of the organization, which dealt with problems concerning the high schools. The title of this yearbook is "Some Aspects of High-School Instruction and Administration." The first paper, entitled "Reconstructed mathematics," by H. C. Morrison, State superintendent of schools of New Hampshire, was discussed by David Snedden, commissioner of education for Massachusetts, and P. Johnson, of the Woodward High School, Cincinnati, Ohio. Supt. Morrison thought that the traditional round of mathematics in the high school must be revised both as "to organization and content, and adapted to the known nature of the adolescent and to the social purpose of the high school as that purpose is increasingly revealed by modern conditions."

The second paper by E. R. Breslich, of the University High School, University of Chicago, entitled "Supervised study as a means of providing supplementary individual instruction," was discussed by C. H. Judd, director of the school of education, University of Chicago; and by J. S. Brown, superintendent of the Township High School, Joliet, Ill. Mr. Breslich discussed the various plans that have been proposed and tried out to provide individual instruction to supplement class instruction, and the efforts made to give pupils assistance while they are studying and training them in habits of study. He said that one of the best means to attain both of these ends was the provision of organized periods of study, for the purpose of supervising individual pupils who are studying silently. He described the experiments that have been organized during the past 25 years to provide for individual differences during class instruction, such as the Pueblo plan, the Batavia scheme, etc.

The concluding paper, entitled "North central high schools," by Walter A. Jessup, of the State University of Iowa, and L. D. Coffman,

of the University of Illinois, was discussed by the latter. The results of the investigation are summarized as follows:

1. Standards determined by definition are not uniformly applied in practice.
2. The problem of administering a system of schools varies in complexity according to the size of the commuuity, the enrollment of the school, the size of the classes, the number of classes, and the character of the teacher.
3. The number of recitations and the potential flexibility of the curriculum and variety of appeals afforded in a given type of schools increase in direct ratio to the size of the community represented.
4. Feminization increases as the amount of executive work decreases.
5. Expectancy as expressed in salaries and tenure increases with the size of the place.
6. Professionalization in teaching rests at present with the more experienced teachers in the larger places.

H. L. Smith, superintendent of schools, Bloomington, Ind., read a paper on "The organization of school surveys in towns and cities," in anticipation of the yearbook in preparation by the same author.

ASSOCIATION OF COLLEGIATE ALUMNÆ.

The thirty-second general meeting of the Association of Collegiate Alumnæ was held in Philadelphia April 13–17, 1914. May Treat Morrison, president, delivered an address on the history and policies of the association, with an outlook into the future, in which she spoke of the expediency of organizing an academic group within the association. Among the numerous resolutions offered was one indorsing the efforts of the Richmond branch of the Southern Association of College Women, and the men and women residents of Virginia, to establish a coordinate college for women at the University of Virginia.

At the conference of deans of women held at Bryn Mawr, Pa., April 14, 1914, the general opinion was expressed that extra curriculum activities constitute an important part of student life, but in order that they may not be carried to such excess that health and academic work suffer therefrom, the following suggestions were offered as to methods of restricting them:

(*a*) The point system, either as carried out by the students themselves or enforced by the faculty. (*b*) The basing of eligibility for any office on the record of the previous semester and the number of hours and grade of work carried on at the time. (*c*) The estimating of various extra curriculum activities in terms of academic hours with a view to keeping the combined total of curriculum and extra-curriculum hours within a definite limit. (*d*) The possible elimination of many existing organizations which seem to have no definite value to either the university or the student. (*e*) The limiting of the purely social activities to certain days and hours.

ASSOCIATION OF HISTORY TEACHERS OF THE MIDDLE STATES AND MARYLAND.

A conference of the Association of History Teachers of the Middle States and Maryland was held at Albany, N. Y., on November 29,

1913. J. Lynn Barnard presented a timely paper on "The teaching of civics in the elementary schools," in which he explained the method of teaching civics in the Practice School, of Philadelphia. He said:

> Civics is itself a life—a growth—a point of view—democracy in the making. This means, first, that the work in civics must be given adequate time in the school curriculum; and, second, that the work must be continuous and cumulative, throughout the first eight years of school life.

James Sullivan, of the Boys' High School, Brooklyn, N. Y., spoke on "Civics in the high school and training for citizenship," and Charles A. Beard, of Columbia University, on "Training for citizenship." Interesting discussions followed these papers. Resolutions were adopted regarding the teaching of civics in elementary and secondary schools and colleges. Concerning the elementary and secondary schools, it was urged that means be found for the actual participation of the students in civic activities. Visits to courts and public buildings are not sufficient; students "should *do* something to help, either as individuals or through civic associations." It was also urged that the association should provide methods to secure separate examinations for United States history and civics. Examination questions in civics should require something besides a knowledge of the machinery of government. As regards colleges, actual research in political science should be undertaken; and participation in public activities should be more extended and on a higher plane.

ASSOCIATION OF COLLEGES AND SECONDARY SCHOOLS OF THE SOUTHERN STATES.

The nineteenth annual meeting of the Association of Colleges and Secondary Schools of the Southern States was held at Knoxville, Tenn., November 6–7, 1913. The general theme of the first day was "The status of the vocational subjects," discussed under the following heads: (*a*) "Their disciplinary value," by J. J. Foster, of the University of Alabama; (*b*) "In the rural schools," by N. W. Walker, of the University of North Carolina; (*c*) "In the city schools," by Harry Clark, University of Tennessee; and (*d*) "Their standardization and acceptance for admission to college," by W. H. Hand, of South Carolina. These papers evidenced a remarkable development of vocational subjects in our schools. J. L. Henderson, of the University of Texas, delivered an address on "Changes in college entrance requirements," which considered especially changes in obedience to religious, social, and economic demands. After an interesting historical résumé of the subject, he said:

> The experiences of the past 40 years have settled one question: The colleges can not successfully resist the demand for the acceptance of new subjects. Then what attitude shall they assume in the matter? They must do for the new subject just what

they have done for the older ones; they must assist in the development and standardization of the vocational work. The work in the new subjects may be improved in four ways: (1) By providing adequately trained teachers; (2) by aiding the schools in the organization of courses of study; (3) by suggestion of suitable equipment; and (4) by careful inspection of the work.

A number of excellent papers were read at the second day's sessions, among them being "What may this association do for institutions further advanced than secondary schools, but not doing full college work?" by George W. Lay, of Raleigh, N. C. After considerable discussion, the executive committee was directed to take the whole theme under advisement and prepare a report upon the subject.

The report of the commission on accredited schools was read by the chairman, Joseph S. Stewart, of the University of Georgia. The commission decided not to make—

any recommendations this year as to changes in the content of the several units now in general use. As recommended at the Spartanburg meeting, the vocational subjects have been listed and space provided on the official blanks for reporting the same. In listing these the commission was guided somewhat by the action of the North Central Association's definitions of these subjects. These standards can be found in the North Central Reports. The commission recommends that not more than 4 such vocational units out of 14 or 15 required for entrance be accepted for any one student by the colleges of the Southern association.

Papers of interest were read by Charles G. Maphis, of the University of Virginia, on "A decade of growth in secondary education in the Southern States"; and by Elizabeth A. Colton, of Meredith College, on "The approximate value of recent degrees of Southern colleges."

CATHOLIC EDUCATIONAL ASSOCIATION.

The eleventh annual meeting of the Catholic Educational Association was held at Atlantic City, N. J., June 29 to July 2, 1914. Very Rev. James A. Burns, Ph. D., president of Holy Cross College, Washington, D. C., spoke on the "Correlation and the teaching of religion," declaring that it remained for Herbart "to sum up and translate the psychological facts and laws of association for the teacher, in his theory of apperception, of which the most important practical principle is, probably, that of the correlation of studies." He remarked that the Catholic ideal, in regard to religious instruction in the school, is in perfect harmony with this elementary law of association, as laid down by psychologists, and elaborated and given pedagogical application by Herbart. The correlation of religion with all other topics of the curriculum was the particular theme of his discourse.

In an address on liberal education, Very Rev. Augustine Stocker, O. S. B., protested against "the fallacy of measuring the value of an educational curriculum by its relation to immediate practical results or by the multitude of studies it comprises." He said that general

culture should come before specialized studies, thereby freeing the mind of the specialist from narrowness. Extensive scientific study, he thought, ought to suppose an A. B. degree with all it implies; there were many far-seeing educators, both in the Catholic Church and out of it, who with Prof. Münsterberg, would denominate many modern school-reforms "school deteriorations."

Brother John B. Nichol, S. M., of St. Michael's School, Brooklyn, N. Y., discussed the subject of "Present-day tendencies in education," the most important and notable of which he classified as belonging to organization, to administration, to the curriculum, and to methods. Concerning organization, he said that the most noteworthy tendency is indicated in the efforts to distribute the time allotments for elementary and secondary studies; in administration of school systems, the most pronounced tendency is the centralization of control in both city and rural schools; in the curriculum, the tendency toward vocational education; and as regards methods, the tendency toward psychological pedagogy.

The Rev. Albert Muntsch, S. J., of St. Louis University, presented an interesting paper on "The relation of vocational to nonvocational courses," which was discussed at length by Brother G. Philip, F. S. C., and Brother Bernardine. Brother J. A. Waldron, S. M., discussed "The organization of a diocesan school system"; and Sister Margaret Mary, Order of Mercy, "The advantages of a central Catholic high school."

In the college department of the association an address of welcome was made by Very Rev. Joseph F. Green, O. S. A., who discussed legislation that attempts "to curtail or utterly deny liberty of education." He deprecated the efforts of educational foundations, financed by private interests, to have the State and National Governments "exercise paternal supervision over all things educational."

The chairman of the language and literature section, Rev. F. P. Donnelly, S. J., made a brief but interesting report, in which he declared that the classical languages are still the most effective instruments for developing the faculties of man and imparting a liberal education. He believed, however, that enthusiastic and practical instruction in English should accompany the study of the classics. It was his opinion that language study should form the principal subject of the college and high school.

AMERICAN INSTITUTE OF INSTRUCTION.

The eighty-third annual meeting of the American Institute of Instruction was held in Cambridge, Mass., July 1–3, 1914. Many notable addresses were made dealing with vital questions in education. David Snedden, commissioner of education of Massachusetts, presented an able paper on "Problems of elementary educa-

tion," in which he drew a comparison between the education of to-day with that of a generation ago. He emphasized some of the definite problems which should be made "a matter of attack" by educators generally under the following heads: (1) Definition of the aims of certain subjects—history, geography, elementary science, drawing, grammar, and manual arts in elementary schools; (2) the organization of definite units of instruction; (3) distinction between learning for the sake of doing and learning for the sake of appreciation; (4) distinction between upper and lower grade work. In regard to the first, he said that instead of well-defined aims we have a variety of guesses or aspirations as to what educational values should result from such studies.

H. C. Morrison, State superintendent of New Hampshire, spoke on "Problems of secondary education." He stated that the program of every secondary school in the New England States should be planned with regard to—

> the needs of the community in which it is placed. It ought to be able to serve that community by ministering in its laboratories and shops to the whole common life of the community, and it ought with equal devotion to be the center of the whole higher life of the town.

The "Problems of rural schools" was discussed by Mason S. Stone, superintendent of education of Vermont. James F. Hosic, of Chicago, in his paper on "Waste in education," said that efficiency engineers are needed in education quite as much as in building. Frank W. Ballou presented a paper on "The significance of educational measurement," in which he declared that the movement for measuring the results in education is but one phase of a larger movement for increased efficiency in all departments of human endeavor. He said that a new science of education was being erected upon these investigations.

James E. Peabody, of the Morris High School, New York City, in an able paper, dwelt on the "Relation of biology to human welfare," emphasizing in particular the sex question. Robert O. Small, of the Massachusetts State Board of Education, in an address on the influence of vocational education upon the conventional curriculum, said that in education there were to be considered the cultural aim, the social aim, and the vocational aim. Vocational education will contribute to the regular schools by vitalizing the programs in those particulars which aim to make the pupil self-supporting; by correlating the teaching with political, industrial, and commercial conditions; and by demonstrating the fact that there are sources of culture in vocational instruction too little recognized by regular school programs.

Arthur W. Dunn, of the United States Bureau of Education, discussed the subject of civics. He showed the beneficial results

obtained in some communities through instruction imparted to youth outside of textbook work.

Many excellent papers were read and discussed in the various conferences on special topics.

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE—SECTION L.

The educational section of the American Association for the Advancement of Science met in Philadelphia in December, 1914. Prof. Paul Hanus, of Harvard University, presided. The regular program was devoted to educational measurement and the exceptional child. Sessions were also held with the American Psychological Association and with the American Federation of Science and Mathematical Teachers. Dr. P. P. Claxton, as retiring vice president, delivered an address on "The American rural school," in which he advocated a very large increase in the average length of school term and a nearer approach to equality in length of term in all such schools. He emphasized higher standards of preparation for rural school teachers, because they have more difficult tasks to perform and consequently require more thorough and comprehensive preparation for their duties than city teachers. Among the papers read were "Educational research—the functions of a department of educational investigation and measurement in a city school system," by Frank W. Ballou; "The selection and training of the exceptionally able child," by David S. Hill; "The training of teachers for exceptional children," by Lightner Witmer; and "The cost of teaching exceptional children," by Leonard P. Ayres.

NATIONAL LEAGUE OF COMPULSORY EDUCATION.

The fourth annual convention of the National League of Compulsory Education was held in Detroit, Mich., November 20–21, 1914. William L. Bodine, of Chicago, delivered the presidential address. James B. Quinn, of St. Louis, Mo., read a paper on "Following up children who work, and the problem of vocational guidance." He rehearsed the vocational methods in vogue in various parts of the country, dwelling particularly on what was being accomplished in the city of St. Louis. Mrs. Ella Flagg Young, of Chicago, presented a paper on "The opportunities of modern education," in which she emphasized prevocational work. W. S. Deffenbaugh, of the United States Bureau of Education, spoke on the "Value of cooperating with the United States Bureau of Education, in collecting statistics," in which he briefly summarized the history, organization and work of the bureau, and dwelt on the advantages of cooperating with it.

The Bureau of Education, he said, gives wider publicity to a study than any organization not Governmental can possibly do. Very little has been accomplished in studying the multifarious problems connected with the enforcement of the compulsory education laws; and the few investigations that have been undertaken have not been distributed free to compulsory attendance officers and to city and county superintendents.

The subject of the "Minimum educational and age qualifications for employment permits" was treated by Supt. Charles E. Chadsey, of Detroit, Mich. He remarked that it was the duty of compulsory education officials to spread the doctrine that all training is radically insufficient until the eighth grade is reached. Paul Kreuzpointner, of Altoona, Pa., discussing the "Unconsidered factors in industrial education," said that what mostly concerns us to-day in the United States is to discover a social-economic basis upon which the millions of industrial workers can—

> rest securely and contentedly with justice to their rights as citizens, so as not to endanger the stability of our institutions and the peace and order of public life. Industrial education is much more a social-economic problem, an ethical problem in training for intelligent citizenship, than it is a problem in training in the manipulation of tools, however valuable and necessary this is.

H. R. Pestalozzi, of Milwaukee, Wis., made an address on "Where shall our work begin and where shall it end?" speaking from the viewpoint of a truant officer.

Resolutions were passed advocating uniform and adequate birth-registration laws; the establishment and maintenance of a permanent census bureau in every city of the United States; and in favor of the unit system of control of industrial education rather than the dual system.

CONFERENCE ON THE EDUCATION OF BACKWARD, TRUANT, DELINQUENT, AND DEPENDENT CHILDREN.

The tenth annual conference on the education of backward, truant, delinquent, and dependent children was held in Buffalo, N. Y., August 26–28, 1913. The first session was opened by Elmer L. Coffeen, of Westboro, Mass., who spoke on "The correlation of school and trade work." The second session, held conjointly with the National Probation Association, developed an interesting general discussion on the problems of delinquent and defective children. At the fourth session, Lewis M. Terman, of Leland Stanford University, made an address on "Special characteristics of the Binet-Simon test," which dealt with the psychological principles underlying the Binet-Simon scale. At the fifth session, a paper on "A State's program for the defectives" was read by Alexander Johnson,

of the Training School at Vineland, N. J. Many interesting photographs of feeble-minded children were presented to illustrate the author's theme. Mr. Johnson remarked that one of the very best kinds of work for the feeble-minded, especially the boys, is to clear and subdue waste land. He spoke of the work accomplished at the Vineland school. The subject of "Mothers' pensions" was treated at the sixth session by Robert W. Hebbard, of New York; and at the closing session the "Care of delinquent girls as to discipline and vocational training" was ably presented by Mrs. Amy F. Everall, of Lancaster, Mass., who thought that vocational training in its technical sense has no real place with young or mentally or morally weak girls. She said: "It is only efficient where girls are mature and have fundamental grounding in education." "Sex hygiene in its relation to vocational training and the defective delinquent" was discussed by Mrs. E. A. Whitney, of Washington, D. C.

NATIONAL ASSOCIATION OF SCHOOL ACCOUNTING OFFICERS.

The third annual convention of the National Association of School Accounting Officers was held in Memphis, Tenn., May 19–21, 1914. The subject of "School accounting from the standpoint of the needs of the Bureau of Education" was discussed by Dr. P. P. Claxton, who dwelt upon the responsibility which devolves upon boards of school control for the economical and scientific expenditure of public funds in the administration of public schools. He spoke of the Bureau of Education and its methods of compiling statistics; and its dependency upon the association for much of the information published in its reports. Henry R. M. Cook, of New York, president of the association, delivered an address entitled "Some school affairs," in which he discussed teachers' pensions and other problems of school administration. An instructive paper on "Standard units of school measurements" was read by George W. Gerwig, of Pittsburgh, Pa. The concluding address of the convention was delivered by Charles P. Mason, of St. Louis, Mo., on "Preparation of the budget," in which he gave an exposition of the budgets of the States and municipalities as well as boards of education. He made a comparison of methods and procedure between American and European municipalities, with regard to the passing and administering of the budget.

GENERAL EDUCATION BOARD.

The General Education Board, the functions of which comprise the advancement of practical farming and the development of a system of public high schools in the Southern States, likewise the promotion of higher education throughout the United States, has,

since its foundation in 1902, rendered annual statements of its activities to the United States Department of the Interior, brief extracts from which have been regularly published in the year-books of the Bureau of Education. These statements have been, for the most part, financial in character. No report of an elaborate nature has been issued in past years, owing to the fact that the board considered its enterprises to be experimental; it desired to avoid premature expositions regarding the scope and outcome of its labors. However, after something more than a decade, the board in February, 1915, published a volume of 240 pages, giving a complete account of its activities, from its inception in the year 1902 up to June 30, 1914.

The General Education Board, founded by John D. Rockefeller, was incorporated by act of Congress, January 12, 1903. The charter set forth the general purpose of the corporation as "the promotion of education within the United States of America, without distinction of race, sex, or creed." As the report says:

> This broad object was specifically stated to include the power to establish or endow elementary or primary schools, industrial schools, technical schools, normal schools, training schools for teachers, or schools of any grade, or higher institutions of learning; to cooperate with associations engaged in educational work; to donate property or money to any such association; to collect educational statistics and information; to publish and distribute documents and reports; and in general to do and perform all things necessary or convenient for the promotion of the object of the corporation.

The report gives an interesting résumé of the work of the Peabody education fund, the John F. Slater fund, and the Southern Education Board in upbuilding education in the South since the War. It cites the fact that—

> neither they nor the General Education Board ever possessed or sought authority; they have simply had such influence as has resulted from public confidence in their disinterested devotion, sympathy, and intelligence. More flexible than governmental bureaus, less restricted in their choice of agents and advisers, more continuous in policy, these organizations have for years devoted themselves to furthering educational plans which represent the consensus of the best judgment obtainable.

Prior to the actual incorporation, Mr. Rockefeller gave $1,000,000 to the General Education Board, stipulating that the principal be used in promoting the educational interests of the people of the Southern States, and that it be expended during a period of 10 years.

The first permanent endowment of $10,000,000 was received June 30, 1905, and was designed to furnish an income—

> to be distributed to, or used for the benefit of, such institutions of learning, at such times, in such amounts, for such purposes, and under such conditions, or employed in such other ways as the board may deem best adapted to promote a comprehensive system of higher education in the United States.

In February, 1907, Mr. Rockefeller made a further gift of $32,000,000; on July 7, 1909, an additional benefaction of $10,000,000. Besides the above-mentioned sums, the board received on April 17,

1905, the sum of $200,000 from Miss Anna T. Jeanes for the assistance of the negro rural schools in the South.

The resources of the board at the present time are estimated at $33,939,156.89, of which $30,918,063.80 constitutes a general endowment fund and $3,021,093.09 a reserve fund. The gross income from these funds for 1913–14 was $2,417,079.62; the Anna T. Jeanes fund yielded a gross income of $9,231.64.

The appropriations of the board up to June 30, 1914, have been as follows: Colleges and universities, $10,582,591.80; medical schools, $2,670,874.11; negro colleges and schools, $699,781.13; miscellaneous schools, $159,991.02; professors of secondary education, $242,861.09; Southern Education Board, $97,126.23; rural school agents (both races), $104,443.18; farm demonstration work—South (including boys' and girls' clubs), $925,750; farm demonstration work—Maine and New Hampshire (including boys' and girls' clubs), $50,876.45; rural organization service, $37,166.66; educational conferences, $18,108.23; administrative expenses, $304,794.99; total, $15,894,364.89.

A considerable part of the report is devoted to farm demonstration work in the South. Unfavorable economic conditions have been responsible for much rural poverty. "It was obvious," says the report, "that the General Education Board could render no substantial educational service to the South until the farmers of the South could provide themselves with larger incomes." A lack of scientific knowledge of agriculture was apparent, and the board therefore determined to undertake the task of educating the farmer, on the theory that, if he could be substantially assisted, he would gladly and more liberally support better schools. An extensive investigation was made as to the most efficient means of conveying to the average agriculturist of the South, in his manhood, the most efficient known methods of intelligent farming. This inquiry resulted in the extension of the so-called cooperative farm demonstration movement. The services of Dr. Seaman A. Knapp were engaged. Dr. Knapp knew that through seed selection and intensive farming the productivity of lands could be immensely increased. In farming communities that had been afflicted with the boll weevil he undertook to propagate his methods by actual demonstrations of their value. He sought to teach farmers not only how to raise cotton and corn, but how "to conduct farming as a business, how to ascertain the cost of a crop, how to find out whether they were making or losing money." The boys' and girls' corn and canning clubs were outgrowths of the demonstration idea. "The Southern club movements," says the report, "may contain the germ of the solution of the vocational problem in the rural districts." The remarkable work of the United States Department of Agriculture in the agricultural uplift of the South is commented on.

The appropriations of the General Education Board in connection with the secondary educational movement of the South totaled $242,861.09.

An interesting part of the report is devoted to colleges and universities. It is illustrated with graphic statistics. The attention of the board as regards the question of higher education has been concentrated on what is ordinarily known as "the department or faculty of arts and sciences—the core of the American college or university." Only within the year 1914 has it undertaken to deal with one of the professional schools, viz, medicine. The sum of $1,500,000, named the "William H. Welch endowment for clinical education and research," was appropriated to further clinical teaching at the Johns Hopkins University, Baltimore, Md., where it was proposed to organize the main clinical departments of medicine, surgery, and pediatrics on the full-time or university basis. The board has also cooperated with Washington University, St. Louis, Mo., appropriating $750,000 toward $1,500,000 for the endowment of university departments in medicine, surgery, and pediatrics. The sum of $500,000 was given to Yale University medical department toward the reorganization of the main clinical departments on the full-time basis. The board authorized the expenditure of not exceeding $45,000 during the current year for the salaries and expenses of rural education agents in 11 Southern States, and resolved further to extend similar offers to selected States in the North, East, and West.

It is the duty of such agents to assist in making complete and dispassionate surveys of rural education in their respective States, including laws, organization, finance, equipment, teaching force, and methods, etc., cooperating with other organizations and agencies and working under the direction of the State departments of education.

The General Education Board has made appropriations to negro colleges and universities as follows: Atlanta University, $8,000; Florida Baptist Academy, $13,000; Fisk University, $70,000; Lane College, $7,000; Livingstone College, $12,000; Shaw University, $18,000; Virginia Union University, $11,500; total, $140,000. Speaking of the higher education, the report says:

> A higher education ought to be furnished to capable negro men and women; but the mere attempt to deliver the traditional college curriculum to the negro does not constitute a higher education. His own needs, environment, capacity, and opportunity should be fully studied, and college curricula should be framed in the light of the facts thus elicited. Moreover, these curricula should all be regarded as experimental.

Concentration on a reduced number of institutions is urged.

REPORT OF SECRETARY OF THE NATIONAL EDUCATION ASSOCIATION.

ANN ARBOR, MICH., *August 31, 1914.*

SIR: Complying with the provisions of section 4 of the act of incorporation of the National Education Association by Congress, approved June 30, 1906, the following is submitted as an annual report:

An office is maintained in the city of Washington at 662 E Street NE., in accordance with section 8 of the act of incorporation, but the association owns no property, real or personal, in the city of Washington.

The personal property of the association is largely in the form of volumes of proceedings, pamphlets, reprints, and office furniture, worth about $12,000, all of which is in the custody of the secretary, in Ann Arbor, Mich., where the business of the association is transacted.

The association has a permanent invested fund, referred to in section 7 of the act of incorporation, which is in charge of the board of trustees. This fund at the close of the fiscal year, June 30, 1914, amounted to $188,000. The net revenue from this fund amounted to $7,444.08, which was transferred to the treasury of the association for current expenses.

During the fiscal year ended June 30, 1914, the total receipts from all sources, including balance at the beginning, were $32,343.15; the total expenses were $32,194.45; the balance in the treasury June 30, 1914, was $148.70.

The chief sources of revenue are membership fees, proceeds of sale of volumes and reports, and income from the invested fund.

The chief items of expense are the printing and distribution of the annual volumes, the maintenance of the secretary's office, and the expense of preparing for and conducting the annual convention.

The usual appropriations for educational investigations were made at the time of the convention, which was held in St. Paul, Minn., July 4–11, 1914. The registered attendance was 6,548.

The general sessions and the sessions of the departments were well attended, and the programs presented were of the usual standard of excellence.

The following general officers were elected for the ensuing year: President, David Starr Jordan, of Stanford University, Cal.; vice president, Joseph Swain, of Swarthmore, Pa.; treasurer, Grace M. Shepherd, of Boise, Idaho.

The executive committee for the ensuing year will be constituted as follows: President, David Starr Jordan, chancellor of Leland Stanford Junior University, Stanford University, Cal.; first vice

president, Joseph Swain, president of Swarthmore College, Swarthmore, Pa.; treasurer, Grace M. Shepherd, State superintendent of public instruction, Boise, Idaho; chairman of trustees, Carroll G. Pearse, president of Milwaukee State Normal School, Milwaukee, Wis.; member by election, George B. Cook, State superintendent of public instruction, Little Rock, Ark.

The board of trustees for the ensuing year will be as follows: Chairman, Carroll G. Pearse, president of Milwaukee State Normal School, Milwaukee, Wis.; secretary, James Y. Joyner, State superintendent of public instruction, Raleigh, N. C.; Robert J. Aley, president of University of Maine, Orono, Me.; James M. Greenwood, Kansas City, Mo.; David Star Jordan, chancellor of Leland Stanford Junior University, Stanford University, Cal.

In addition to the regular publications of the association, we desire to acknowledge the courtesy extended by the Bureau of Education in printing the following reports of our committees as a part of its series of bulletins: The report of the committee on standards and tests for measuring the efficiency of schools or systems of schools, as Bulletin No. 13, 1913; the report of the committee on economy of time in education, as Bulletin No. 38, 1913; preliminary report of the commission on the reorganization of secondary education, as Bulletin No. 41, 1913; and the report of the committee on teachers' salaries and cost of living, as Bulletin No. 16, 1914, entitled "Tangible rewards of teaching."

I am, respectfully, yours,

D. W. SPRINGER,
Secretary.

Hon. P. P. CLAXTON,
Commissioner of Education of the United States,
Washington, D. C.

CHAPTER XXVIII.

EDUCATION IN TERRITORIES AND DEPENDENCIES—SCHOOLS CONDUCTED BY UNITED STATES GOVERNMENT.

CONTENTS.—Education of natives of Alaska—The schools of Hawaii—Canal Zone—Education in the Philippines.

EDUCATION OF NATIVES OF ALASKA.

During the fiscal year ended June 30, 1914, the field force of the Bureau of Education in Alaska consisted of 5 superintendents, 1 assistant superintendent, 97 teachers, 9 physicians, 9 nurses, and 3 hospital attendants. Seventy schools were maintained, with an enrollment of 3,666 and an average attendance of 1,991.

In addition to performing the various duties included in the routine of their work, the employees of the Bureau of Education in Alaska must sometimes meet emergencies that do not confront school superintendents and teachers in the United States. This was especially the case during the fiscal year 1913–14. On October 5 and 6, 1913, the town of Nome, with its adjacent coast, was visited by a severe storm that resulted in destruction of property and loss of life. Immediate action for the relief of the stricken natives was taken by Mr. Walter C. Shields, superintendent of schools in the northwestern district, assisted by the teachers. Subsequently a congressional resolution placed at the disposal of the Secretary of the Interior for the relief of those thus rendered destitute the sum of $2,455.52, the balance remaining of an appropriation made in 1912 to relieve suffering caused by the eruption of Mount Katmai, a volcano in southwestern Alaska. Of the sum thus appropriated, $1,500 was set aside for the relief of Eskimos and $955.52 for the relief of white persons, to be expended through the special disbursing agent of the Bureau of Education at Nome, under the direction of the superintendent of the northwestern district.

In November, 1913, information was received of the prevalence of an epidemic of measles and of consequent destitution among the natives of Kodiak Island, Afognak Island, and of the Cook Inlet region, in southwestern Alaska. At the request of the Interior Department, the Treasury Department sent the revenue cutter *Tahoma* from Seattle to the stricken district, carrying an officer of the

Public Health Service, medicines, disinfectants, and about 2 tons of food supplies furnished by the American Red Cross upon the request of the Bureau of Education. Dr. L. W. Jenkins, of the Public Health Service, and Dr. H. O. Schaleben, superintendent of schools in the southwestern district, visited the villages in which the disease prevailed, and, with the cooperation of the teachers, extended medical relief to the sufferers, and after the outbreak had been checked fumigated all infected places. Owing to these vigorous measures the deaths were kept down to about 80. The effects of the epidemic were especially felt in the village of Seldovia, where it was necessary for the teacher to distribute food to the famishing people for some weeks after the disease had disappeared.

During the winter of 1913–14 an outbreak of infantile paralysis occurred at Tanana and its vicinity, also at Crossjacket, in the upper Yukon district. In the absence of a physician of the Bureau of Education, the commanding officer at Fort Gibbon kindly allowed one of the nurses of the Hospital Corps of the Army to assist Mr. George E. Boulter, superintendent of schools in the upper Yukon district, in maintaining quarantine and in taking other action necessary for the suppression of the disease. This epidemic was the cause of many deaths among the natives, and left several natives incurably paralyzed.

In the spring of 1914 the breaking up of the ice in the Yukon River caused a serious flood at Circle City, which inundated the native village and did considerable damage to the school building.

Tuberculosis, pneumonia, rheumatism, and venereal diseases prevail to an alarming extent in many of the native villages. Investigations conducted by Passed Asst. Surg. Emil Krulish, detailed for service in Alaska, show that at least 15 per cent of the native population of Alaska is infected with tuberculosis in its varying forms, both active and latent, while in 7 per cent it is present in its active stages.

As knowledge of health conditions among the natives of Alaska becomes more definite, the need for larger funds for medical relief becomes more urgent. The endeavors of the bureau to secure from Congress a specific appropriation for the support of an adequate medical service in Alaska have not yet met with success. In order to meet the imperative demands of the medical work, it has been necessary from time to time to increase the amount taken from the education fund. To provide the additional money demanded by the medical work, six of the schools in the smaller villages, with a population of approximately 800, had to be closed, at the beginning of the fiscal year. With the sole uplifting agency thus removed, there is danger that these villages will drift back to the deplorable conditions that prevailed before the schools were established.

Of the appropriation for the education of natives of Alaska for the fiscal year ended June 30, 1914, more than $36,000 was used in employing nine physicians and nine nurses; in maintaining improvised hospitals at Nulato, Kotzebue, and Kanakanak; in payments under contracts with St. Ann's Hospital at Juneau, with the Good Samaritan Hospital at Valdez, with the Holy Cross Hospital at Nome, and with the Fairhaven Hospital at Candle, for the treatment of natives who are destitute; also, as heretofore, in furnishing the teachers of the United States public schools with medicines and medical books in order to enable them to treat minor ailments.

The act of May 17, 1884, providing a civil government for Alaska, stipulated that the natives should not be disturbed in the possession of any land used or occupied by them. However, with the influx of white men the village sites, hunting grounds, and fishing waters frequented by the natives from time immemorial have often been invaded, native settlements exploited by unscrupulous traders, and the pristine health and vigor of the natives sapped by the white man's diseases and by the white man's liquor. To protect the natives, the Bureau of Education has adopted the policy of requesting the reservation by Executive order, now, before Alaska becomes more thickly settled by white immigrants, of carefully selected tracts to which large numbers of natives can be attracted, and within which, secure from the intrusions of unscrupulous white men, the natives can obtain fish and game and conduct their own industrial and commercial enterprises. To the humanitarian reasons supporting this policy are added the practical considerations that within such reservations the Bureau of Education can concentrate its work, and more effectively and economically influence a larger number of natives than it can reach in the small and widely separated villages. Such reservations have been made of Annette Island, of St. Lawrence Island, and of tracts of land at Hydaburg, Klawock, Fort Yukon, Klukwan, Port Gravina, Fish Bay, Long Bay, and on the banks of the Kobuk River.

Formerly it was possible for the Eskimos on the shores of Bering Sea and the Arctic Ocean and in other remote regions of Alaska to dispose of their valuable furs, ivory, and whalebone only to the local traders, with the result that the natives usually received low prices for their commodities and were constantly in debt to the local traders. Availing themselves of the parcels-post service and of the increased opportunities to send freight, many Eskimos who have been educated in the schools now forward packages of fox, lynx, and mink skins, and ivory and whalebone to the office of the Alaska Division in Seattle, which, through the Seattle Fur Sales Agency, sells the furs at public auction, in accordance with the rules governing such sales, with the

result that many natives are now receiving full value for their goods. The proceeds of all sales are sent to the individual natives, applied to the settlement of their accounts with the Seattle merchants, or placed to their credit in savings banks, as requested, and detailed account is kept of all transactions. The net proceeds of the furs, ivory, and whalebone thus sold in Seattle for the natives during the fiscal year ended June 30, 1914, was $4,615.90.

The captain of the vessel which for the past seven years has made the annual delivery of supplies to settlements along the Arctic coast of Alaska has carried many tons of food supplies, packages of clothing, and household goods, purchased with the proceeds of the sale of furs and other commodities sent out by the natives during the previous summer. All transactions in connection with these sales, purchases, and shipments have hitherto been carried on under the general oversight of the chief of the Alaska Division of the Bureau of Education, acting as a private individual. This philanthropic action, inaugurated as an emergency measure, has now received official sanction by the Department of the Interior and has been made part of the official duties of the chief of the Alaska Division, who is under bond for the faithful performance of the same.

During the summer of 1913 the natives of Tatitlek, under the instruction and supervision of the teacher, conducted a successful experiment in salting and exporting salmon bellies. The Bureau of Education provided the fishing equipment, including a drag seine and two gill nets, and a wholesale dealer in salt fish in Seattle furnished the salt and barrels and guaranteed the natives stipulated prices for the various species of salmon. This industry was continued during 1914, and 165 barrels of salted salmon bellies were exported during the season.

The waters of Alaska teem with fish, and throughout its vast area wild berries grow in profusion. In the native villages, according to the ancient practice, the fish for winter use are either dried in the sun, crudely smoked, or buried in the earth, while the berries are preserved in oil. In order to replace these primitive methods, during the summer of 1914 steam-pressure home-canning outfits for use in preserving fish and meat, as well as berries and vegetables, were sent to Mountain Village, on the Yukon River, and to Klukwan and Metlakahtla, in southeastern Alaska. It is hoped that many natives will buy such outfits; their general use can not fail to have a beneficial effect upon the health of the native communities.

The Bureau of Education fosters the establishment of cooperative enterprises owned and managed by the natives themselves. That the natives can, under proper supervision, successfully conduct their own enterprises has been demonstrated at Hydaburg, Klawock,

Atka, and St. Lawrence Island, where cooperative stores have been in operation for some years. In their own cooperative stores the natives secure articles of food, clothing, and furniture at equitable prices, and the shareholders divide among themselves the profits which would otherwise go to a middleman.

RECOMMENDATIONS.

The imperative necessity for adequate and special provision by congressional appropriation for the medical relief of the Eskimos, Indians, Aleuts, and other natives of Alaska can not be too strongly urged. Year after year this matter has been brought to the attention of Congress, without success. As an emergency measure, dictated by the absolute necessity for action, part of the education appropriation continues to be used for the checking of disease in the native communities. Three school buildings have been remodeled for use as improvised hospitals, a few physicians and nurses have been employed, and the teachers have been supplied with simple remedies to enable them to treat minor ailments. This makeshift arrangement should be replaced by an adequate medical service such as has been repeatedly recommended by the Bureau of Education in the estimates submitted to Congress.

One of the greatest difficulties with which those responsible for the work of the Bureau of Education have to contend is the fact that the congressional appropriation for the support of this work is usually not available until the end of August. With the exception of its southern coast, all of Alaska is icebound for eight months of the year. It is only during July, August, and September that supplies can be delivered at places in the interior of Alaska and on the shores of Bering Sea and the Arctic Ocean. In order to insure delivery before those regions are again closed by ice, supplies should leave Seattle not later than June 1 of each year. It is therefore recommended that the estimates for the support of the work of the Bureau of Education in Alaska be taken out of the sundry civil bill and included in the urgent deficiency bill.

It is recommended that the appropriations for the support of the Alaska school service and of the Alaska reindeer service be made reimbursable, as is the case with regard to several of the appropriations for the support of the Indian Service in the States. Some of the school gardens produce vegetables in excess of immediate needs. It is probable that the surplus product of these gardens, also the baskets and other native work done in connection with the school service, could be made productive of considerable income. By the sale of meat and hides the reindeer service could probably be made self-supporting.

THE REINDEER SERVICE.

The reports from the reindeer stations for the fiscal year ended June 30, 1914, show a total of 57,872 reindeer distributed among 65 herds. Of the 57,872 reindeer, 37,828, or 66 per cent, were owned by 980 natives; 4,113, or 7 per cent, were owned by the United States; 5,924, or 10 per cent, were owned by missions; and 10,007, or 17 per cent, were owned by Lapps. The total income of the natives from the reindeer industry during the fiscal year, exclusive of the meat and hides used by the natives themselves, was $77,934. The total, 57,872, is a net increase of 22 per cent during the fiscal year, notwithstanding the fact that nearly 6,000 reindeer were killed for meat and skins during the year.

No deterioration in the herds on account of inbreeding has been noted. On the contrary, the chief of the Alaska Division maintains that the reindeer now in Alaska are larger animals than those which comprised the original stock imported from Siberia, that Alaska affords a better range than Siberia, and that the climate is better adapted to the reindeer industry. The herds in Alaska average more than 700 reindeer each, so that the danger of inbreeding can not be serious. The introduction of wild caribou into some of the herds has increased the size of the reindeer in those herds.

The greatest menace to the reindeer industry are the fires, usually started in the neighborhood of mining camps, which sometimes cause the wanton destruction of vast stretches of valuable grazing lands.

The reindeer industry is now extending from the mainland to the outlying islands. During August, 1914, upon the request of the Department of the Interior, the Revenue cutter *Manning* conveyed a herd of 40 reindeer from Ugashik, on the Alaska Peninsula, to Atka, a remote island in the Aleutian chain, where it will be a valuable factor in alleviating the deplorable conditions which have hitherto prevailed upon that desolate island. The extension of the reindeer industry into southeast Alaska was begun by the shipment to Metlakahtla, on Annette Island, of 8 reindeer from the herd in the vicinity of Nome.

The Bureau of Education is distributing the reindeer as rapidly as the natives can be trained to individual ownership, the policy being to encourage independence and initiative among the native population. The distribution of reindeer is in charge of the United States schoolteachers, and it is expected that the Government will distribute all its reindeer within the next four years.

In August, 1911, 40 reindeer were delivered to the Department of Commerce for use in stocking St. Paul and St. George Islands; in June, 1914, the number of reindeer on those islands had increased to 133, of which 75 were on St. Paul and 58 on St. George.

By Executive order the Aleutian Islands have been set aside as a reservation under the Department of Agriculture and the Depart-

ment of Commerce for the conservation of fish and fur-bearing animals, and for the raising of reindeer. In compliance with the request of the Department of Agriculture, 55 reindeer were delivered to that department during September, 1913, from one of the herds of the Department of the Interior on the Alaska Peninsula, of which 19 were landed on Amaknak Island and 36 on Umnak Island, of the Aleutian chain.

Hitherto no special endeavor has been made to foster the exportation of reindeer meat from Alaska, in view of the fact that most of the reindeer butchered have been required to supply the local markets in Alaska. It appears that such exportation is now desirable. The last steamer to leave Nome before the close of navigation by ice brought to Seattle 25 carcasses of reindeer. These were placed on sale in Seattle, retailing at from 20 to 35 cents per pound. The chief of the Alaska Division also brought from Nome 3 carcasses to be distributed among the five transcontinental railway lines running out of Seattle, in order that reindeer meat might be given a trial on the dining cars, with a view to securing for the natives contracts for the delivery of reindeer meat each season.

Soon after the inception of the reindeer enterprise certain Lapps were brought from Lapland to Alaska and employed by the Bureau of Education as instructors of the Eskimos in the care and management of the reindeer, each Lapp receiving a certain number of reindeer in payment for his services. During the summer of 1914 a company, organized at Nome, purchased about 1,200 reindeer from one of these Lapps. This company intends to purchase other herds now owned by Lapps, and to engage in the exportation of reindeer meat on a large scale.

THE SCHOOLS OF HAWAII.

The unusual racial situation that complicates the task of education in Hawaii may be seen from the following: There are in the Territory 6,377 native Hawaiians in the public schools and 1,737 in the private schools. The Japanese in the public schools number 10,329, with 1,179 in the private schools; while the Chinese have 2,638 in the public and 974 in the private schools. Of Portuguese the public schools have 4,329, and the private schools 1,071. The public schools have also 920 Spanish pupils and 717 Porto Ricans. There are only 635 American pupils in the public schools, but there are 768 in the private schools. There are of British, Germans, Russians, and Filipinos in the public schools about an equal number, not over 200 of each nationality.

The total of 33,288 pupils of various nationalities, distributed out of all proportion among the native population, presents, therefore, a problem for the Hawaiian public schools not equaled by another section under the jurisdiction of the United States.

In the 168 public schools in the Territory there are 571 female and 142 male teachers. Of the 26,990 pupils enrolled in the public schools, the average attendance reaches 25,019. The island of Oahu, which has the largest number of pupils, 10,659, has a record of 10,576 as the average attendance.

The total number of pupils in all Hawaiian schools for the year amounts to 33,288, an increase of only 350 as compared with an increase of 3,029 last year. The public-school pupils, who number this year 26,990, increased 1,359 over last year; while the private-school pupils, now numbering only 6,298, show a loss of 1,009 in comparison with last year.

The Japanese still furnish the largest number of pupils, totaling 11,508 for the year; but the increase is but 518 as against 1,692 last year. The Portuguese pupils come next in representation with 5,400 in all schools, but this is 97 less than reported a year ago. On the other hand the part-Hawaiians, who numbered less than the Hawaiians in previous reports, this year take the third place, outnumbering the latter by 216. The percentage of part-Hawaiian pupils in the Territory for 1914 is 12.51 of the total enrollment in all schools.

As to teachers in both the public and private schools of the Territory, by far the largest number of any nationality are Americans. There are 290 of these in the public and 221 in the private schools of the islands. There are 176 part-Hawaiian public-school teachers. There are also 68 Portuguese and 30 Chinese. The total public-school teaching force is 713.

The following tables show the statistics in regard to schools:

Expenditures for public schools, by fiscal years, since organization of Territorial government.[1]

Fiscal years.	Schools.	Teachers.	Pupils.	Maintenance.	New buildings.	Per pupil.	
						Maintenance.	Total.
1901	140	352	11,501	$358,925.72	$8,773.37	$29.05	$29.76
1902	143	380	13,189	364,374.72	12,121.54	28.12	29.05
1903	144	386	13,793	393,502.64	10,411.02	28.52	29.28
1904	147	399	14,467	409,048.84	96,513.71	28.27	34.94
1905	154	414	15,202	336,358.59	257,387.12	22.12	39.05
1906	151	435	16,119	361,458.99	61,270.87	22.42	26.22
1907	153	441	17,138	349,933.14	75,169.88	20.41	24.80
1908	154	476	18,564	467,555.05	88,932.17	25.18	29.97
1909	153	493	19,507	446,832.60	86,075.94	22.90	27.31
1910	152	486	19,909	470,176.08	14,410.41	23.56	24.34
1911	155	523	20,597	479,351.19	4,243.41	23.27	23.48
1912	156	582	23,752	630,334.65	92,577.92	26.53	30.43
1913	161	674	25,631	677,799.72	268,741.78	26.44	36.93
1914	168	713	26,990	742,310.63	77,208.85	27.50	30.36
Total				6,487,962.56	1,153,837.99		

[1] Exclusive of purchase of sites for schools and expenditures for the College of Hawaii. The amounts for maintenance and new buildings for the last five years include expenditures by the counties on buildings and grounds as follows: Maintenance, $35,752.96, $32,403.63, $47,799.49, $43,365.68, and $62,098.28; and new buildings, $4,243.41, $4,453.55, $13,106.71, $34,064.99, and $11,262.27, for 1910, 1911, 1912, 1913, and 1914, respectively.

Pupils, by ages, public and private schools, June, 1914.

Islands and schools.	Under 6 years.	6 years.	7 years.	8 years.	9 years.	10 years.	11 years.	12 years.	13 years.	14 years.	15 years.	Over 15 years.	Male.	Female.	Total.
Public:															
Hawaii	55	755	947	1,034	1,026	929	930	828	767	587	233	153	4,466	3,778	8,244
Maui	43	486	524	481	474	484	448	351	323	220	88	153	2,183	1,892	4,075
Molokai	8	24	28	18	25	29	18	18	18	20	9	13	127	101	228
Oahu	19	705	1,086	1,289	1,306	1,222	1,162	1,084	931	712	449	694	5,803	4,856	10,659
Kauai	22	480	488	538	459	433	444	327	340	167	55	31	2,036	1,748	3,784
Total	147	2,450	3,073	3,360	3,290	3,097	3,002	2,608	2,379	1,706	834	1,044	14,615	12,375	26,990
Private:															
Hawaii	90	67	72	77	71	64	74	79	66	52	56	78	445	401	846
Maui	260	54	54	62	58	79	77	72	70	49	43	54	451	481	932
Oahu	818	228	255	236	248	230	216	275	298	330	348	971	2,640	1,813	4,453
Kauai	.....	4	7	3	9	11	11	10	11	1	.....	.....	23	44	67
Total	1,168	353	388	378	386	384	378	436	445	432	447	1,103	3,559	2,739	6,298
Grand total	1,315	2,803	3,461	3,738	3,676	3,481	3,380	3,044	2,824	2,138	1,281	2,147	18,174	15,114	33,288

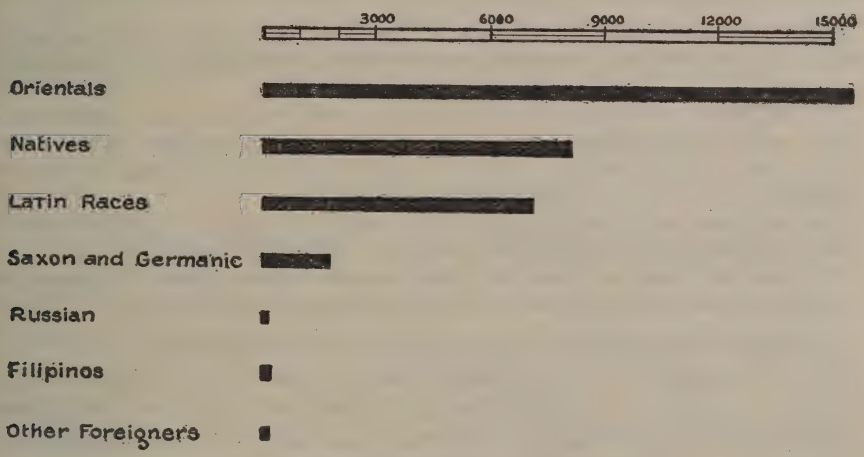


Diagram showing school attendance, by nationalities.

In his report for 1913–14, Gov. W. F. Frear declares:

The Territory of Hawaii has been distinctly and generously a supporter of education in practical forms and also of what may be termed advanced theories of pedagogical and ethical types, and the tendency has been to magnify these latter. A point has been reached where there must be a reaction in favor of sound, rational education, if the Territory of Hawaii is to find support in the vocations it has to offer its children after such preparation. The department of public instruction has been directed to use all its wisdom and effort to bring about sound, not theoretical, education, and it is making the effort.

CANAL ZONE.

Amendments requiring four years of college training for high-school teachers and limiting the female teaching force to unmarried women were made to the rules governing qualifications of teachers for the

Canal Zone during the year 1913–14. The present requirements for appointments to positions are as follows:

No applicant will be considered who is not an American citizen; who is more than 45 years of age; who has not completed a regular four-year high-school or academy course; who has not had two years' training in a standard normal school or college; and two years' successful experience, certified to by at least three persons engaged in educational work and having personal knowledge of the applicant and her work as a teacher. High-school teachers must have four years' college or university training, in place of the two years' college or normal training required for grade teachers.

Medical inspection of schools was continued during the year. The record of inspection of white pupils with respect to eyes, ears, nose, throat, and teeth shows that out of a total of 894 children examined, 352, or 39.4 per cent, were found defective, and 39 were treated.

On May 22 the chief health officer issued the following instructions to district physicians regarding medical inspection of schools:

Hereafter please make an inspection, at least once each month, of all the public schools in your district and report thereon, in writing, to this office on the last day of the month.

The inspection of the school building should be with reference to its sanitary condition, and should cover cleanliness of water-closets, lavatories, receptacles for holding drinking water, the question of individual drinking cups, overcrowding, condition of playgrounds, and anything else that may be of interest.

The inspection of the pupils should not interfere with their work and should be made with particular reference to the presence of contagious diseases, etc.

Any insanitary condition should be brought at once to the attention of the principal of the school, and if not corrected it should be taken up with this office.

Copies of this circular were furnished to all teachers.

At the request of the chief health officer, and in order to enable the district physicians to keep a check on the fever cases in their respective districts, the following direction was issued to all teachers on June 5:

No pupil absent from school on account of sickness shall be readmitted to school without a certificate from the district physician.

During the year a public schools athletic league was formed in the white schools, with the cooperation of the Y. M. C. A. clubhouse officials. The first annual meet of the league was held on Friday evening, June 12, in the clubhouses at Balboa, Corozal, Empire, Gatun, and Cristobal. The meet was won by the Corozal school. There were 198 participants, 99 boys and 99 girls. Each participant was given a certificate signed by the superintendent of clubhouses, the president and the secretary of the league, and the superintendent of schools.

The Canal Zone high school, as organized at the close of the year, consisted of the main high school at Ancon and the branch high school for first and second year pupils at Gatun.

The following table epitomizes the more important school statistics:

Statistics of the Canal Zone for the years ending June 30, 1911, 1912, 1913, and 1914.

	1911	1912	1913	1914
Number of school buildings	27	26	29	23
Buildings erected and converted	2	5	1	1
Additional rooms erected (additions to existing buildings)	15	1	3	4
Number of employees in division	73	81	86	75
Number of supervisory force	3	3	3	3
Total expenditures (approximate)	$93,000	$99,000	$90,000	$89,000
Estimated value of school property	$160,000	$150,000	$150,000	$130,000
Net enrollment:				
White schools	1,138	1,245	1,369	1,270
Colored schools	1,493	1,535	1,580	1,492
White and colored	2,631	2,780	2,949	2,762
Per capita expense of maintenance (approximate)	$35.35	$35.61	$35.19	$32.22
Total days of attendance	240,242	294,694	324,282	277,016
Average daily attendance	1,434	1,714	1,828	1,683
Absence of teachers (days)	287	357	322	213
Average monthly wages of teachers:				
White	$96.50	$96.96	$98.08	$98.37
Colored	$55.00	$55.71	$55.80	$56.96
Tuition collected	$576.00	$694.00	$744.00	$1,089.00

Holidays in 1913–14: Panama Independence Day, November 3; Thanksgiving Day and Friday following, November 27 and 28; Christmas holidays, December 22, 1913, to January 2, 1914, inclusive; Washington's Birthday, February 22; Easter holidays, April 6 to 10, inclusive; Decoration Day, May 30.

EDUCATION IN THE PHILIPPINES.

GENERAL STATEMENT.

Briefly stated, the problem which the government of the Philippines must face is, first, to give the great mass of the population a primary education; second, to give an intermediate education to those who will constitute the substantial middle class of the country; and third, to provide secondary and higher instruction for those who are to assume leadership in thought and action.

It is the aim to give the great mass of the population elementary instruction in reading and writing; in sufficient arithmetic for simple business transactions; in home and world geography; in the simple rules of sanitation; in good manners and right conduct; in physical training to a point where they can bear effectively the increasing burden which civilization lays upon mankind; in notions of the rights and duties of citizens; and in a certain amount of industrial work to promote industry and general efficiency.

There is at present in the Philippines a genuine enthusiasm for education. This is largely a product of the work of the last 13 years. In the early days there was, of course, a small class of people who realized the benefits of education and were anxious to have their children avail themselves of all educational opportunities, but the general desire for education among the masses did not exist. Naturally all, including those who realized the benefits of an education, were more or less suspicious of a system which violated so many of their preconceived notions. In many sections of the country the

upper class kept their children away until the schools had proved their value. As soon as a considerable number of pupils passed from the primary into the intermediate and then into the secondary grades, however, the people saw evidence of progress, and schools gradually became popular with this more influential element.

One of the greatest factors in popularizing the public schools was the introduction of athletic sports. Athletics has served not only to increase the regularity of attendance, but also to reduce the amount of tardiness, which at the beginning was appalling.

The feeling that earlier operated against the public schools later operated in their favor; the movement for independence a few years ago gave the people the impression that time spent in the public schools was wasted, since independence would bring an entire change in the conduct of affairs. In later years there has been a feeling that the granting of independence is contingent upon education, and that the public schools offer the sure way of achieving this end. This is reflected in the attitude of a considerable number of men who prefer to send their own children to private schools, but who nevertheless support the public schools to the best of their ability.

ENROLLMENT AND ATTENDANCE.

The allotment made by the Hon. W. Cameron Forbes, while governor general of the Philippines, of the sum of $75,000 for the establishment and maintenance of 1,000 additional primary schools and the passage of Act No. 2288, appropriating the sum of $87,500 to complete the sum of $162,500 necessary for the maintenance of these schools, made it possible to increase the attendance in the public schools during the current year by more than 100,000.

For September, 1914, the monthly enrollment was 525,959. Of this total monthly enrollment, 486,511 were in the primary grades, 33,579 in the intermediate grades, and 5,869 in the secondary grades. Of this monthly enrollment, 23,695 boys and 9,820 girls were enrolled in the last year of the primary course; 6,020 boys and 1,580 girls were enrolled in the last year of the intermediate course; and 465 boys and 77 girls were studying in the last year of the secondary course. The number of schools has been increased from 2,934 in the month of March, 1913, to 4,304 for the month of September, 1913, an increase of 1,370.

INDUSTRIAL INSTRUCTION.

The industrial instruction started by the Philippine bureau of education almost from its beginning, and systematized four years ago, has become a powerful element in the development of the country. It is believed that this instruction will increase the industrial efficiency of the people and create an educated class in sympathetic touch with

labor and the development of the country. To appreciate the present-day attitude of the educated class and to realize how much progress has been made in the last 13 years, it is only necessary to recall the early days, when a clerk would feel insulted if asked to carry a book or close a window; when a large part of the pupils came to school with servants carrying books and umbrellas; and when American teachers were told by prominent Filipinos that the carrying of a box or suitcase would lead to loss of social prestige.

The Philippine bureau of education has made special effort to standardize the various lines of handicraft work, and to this end has sent to the field a series of about 130 designs containing illustrations and explicit working directions for the making of such articles. The success in discovering new industrial materials and in extending the application of those formerly known has gone on apace.

The results achieved thus far have been the inauguration of an industrial system and its acceptance by the people and teachers; the working out of industrial courses adapted to the needs of the people and to the utilizing of materials indigenous to the country; a better appreciation of the character and extent of local industries; the gathering of a mass of material dealing with the situation, and its issuance to the field in the form of texts, bulletins, and The Philippine Craftsman. The commercial side of the situation has been kept in view from the beginning, though the purpose is not, nor has it been, to exploit in any way the productive capacity of pupils. The purpose is rather to train them to become useful citizens and at the same time to develop in them a keener realization of the industrial needs and possibilities of their country. This program will be continued with special reference to specializing in the further use of materials and designs distinctive of the Philippines.

Agricultural education has been extended into the intermediate grades by means of a special type of intermediate school. Practical agricultural education, including the study of agricultural texts in connection with daily field work, and of academic subjects, is given in the fifth, sixth, and seventh grades. In connection with this course in farming, there is offered, where practicable, a special course for girls in housekeeping and household arts.

These farm schools are concerned with developing model 10-hectare farms. At present eight such schools are being conducted, at the following places:

Batac Farm School, Batac, Ilocos Norte.
Ballesteros Farm School, Ballesteros, Cagayan.
San Carlos Farm School, San Carlos, Pangasinan.
Batangas Farm School, Batangas, Batangas.
Iba Farm School, Iba, Zambales.
Guinobatan Farm School, Guinobatan, Albay.
Indang Farm School, Indang, Cavite.

Reports show an enrollment of 1,339 pupils in these schools. It is expected that the extension work will continue as rapidly as the necessary financial assistance can be secured until there is at least one farm school in each province.

THE CORN CAMPAIGN.

During the school year 1912–13 the Philippine bureau of education conducted a corn campaign which directly aimed to encourage the people in the growing of corn, by teaching them how to use it, and especially by furnishing them recipes for the many good, wholesome things which can be made economically from it. Over 43,500 boys are enrolled in the present campaign.

A corn display was made in Manila at the 1913 carnival as a part of the bureau of education exhibit. The prize-winning ears of corn in each provincial contest were submitted, and from these the insular winners were chosen. This was the first corn exhibit held in the Orient. Besides the display of corn, various dishes made from corn were served; hand corn mills and other improved machinery were shown, and posters and placards giving facts relating to the work were in evidence.

TEACHERS.

When American teachers were first employed for the Philippine service, the idea of the authorities seemed to be that they would be teachers of English in schools taught and managed by Filipinos. The American teacher was to have a classroom to which pupils would come at stated periods for instruction in English. It was found, however, that there was no adequate supply of native teachers qualified to handle instruction either in English or Spanish, and as a result American teachers were compelled to assume charge of the school and begin the instruction of young Filipino men and women ambitious to become teachers. As soon as a small number of these teachers was developed they were sent out to teach, and the supervising system was gradually evolved. At first all supervising teachers were Americans, but gradually the best-qualified Filipinos were assigned as supervising teachers, and the number has been constantly increased.

It has been the policy of the Philippine bureau of education to lay an increasing amount of responsibility upon the Filipino teacher. As a result, where five years ago there were 70 Filipino and 390 American supervising teachers, there are to-day 124 Filipino supervising teachers and 185 American. Moreover, there are a number of Filipinos assigned to work which is at least equal in importance and responsibility to that of the supervising teachers. There are now 29 Filipino provincial industrial supervisors, and this number will be constantly increased. There are at present 120 intermediate schools

with Filipino principals. Five years ago there were 208 Filipino and 366 American teachers engaged in intermediate instruction; at the present time there are 430 Filipinos and 148 Americans. Primary instruction, except in a very few classes where special work is carried on, is entirely in the hands of Filipinos.

INSULAR SCHOOLS.

The School of Household Industries.—The establishment of the School of Household Industries was made possible by an appropriation of $50,000 under the provisions of Act 2110. The purpose of this school is to train adult women in lace making and embroidery, with a view to their returning to their respective towns to form industrial centers for carrying out these industries. The course of study covers a period of eight months, and to date 250 have been graduated from the school.

The Philippine School of Arts and Trades.—Work on the plans for the new building for the Philippine School of Arts and Trades is nearing completion. Until the buildings are ready for occupancy, little expansion can be made in the work of this school. It is impossible at present to accommodate the applicants for admission. During one month the attendance was over 600.

The Philippine School of Commerce.—The work of the Philippine School of Commerce continues to progress satisfactorily. During the month of December 308 pupils were in attendance. In the commercial night school conducted for the accommodation of young men and women who are employed during the day there were enrolled for the month of December 249 pupils. For administrative purposes this school is under the direction of the superintendent of city schools. It is supported from insular funds.

The Central Luzon Agricultural School.—The Central Luzon Agricultural School, an insular school located at Munoz, Nueva Ecija, has made very marked progress during the last six months. On a reservation comprising 657 hectares has been built up an institution which promises to become the model for future work. It is not only a school, but an industrial community, where every opportunity is given to the pupils to participate in the practical problems of everyday life. Field and garden crops are grown, buildings, roads, irrigation and drainage systems are constructed, and the affairs of the school are so arranged as to approximate conditions which will be encountered when the pupils take up their life work as citizens of the country.

The Nautical School.—The oldest educational institution to come under the supervision of the Philippine bureau of education was the Philippine Nautical School, which was first established in Manila in 1839. It was continued under the American régime until 1907.

The school was finally closed owing to dissatisfaction arising from its indefinite status and the uncertainty of appropriations for its support. Since the closing of this school there has been from time to time a demand for its reestablishment. Accordingly, on the recommendation of the shipowners' association, the secretary of public instruction instructed the director of education, in the latter part of 1912, to open a nautical class in connection with the Philippine School of Arts and Trades.

OTHER EDUCATIONAL ACTIVITIES.

The public schools as a civic factor.—Public schools have made a notable contribution to the body politic of the islands. Probably of the 240,000 voters of the present time not more than 99,000 are qualified as electors because of education. Of this number there is a considerable percentage that claims an education in English as meeting the requirements. During the school year 1912–13 the primary course was completed by 10,938 boys and 4,102 girls. As soon as these boys are of age, they should be qualified as voters, and this number is bound to increase very rapidly from year to year.

Civico-educational lectures.—Act 1829 provided that the director of education should make arrangements to have municipal teachers throughout the islands deliver annual series of civico-educational lectures. Accordingly, lectures have been given on the rights and duties of citizens, the prevention of diseases, rice, coconuts, corn, the housing of the public schools, and coconut beetles. Generally these lectures are given in connection with some musical or literary entertainment, which serves to attract the people of the community. In addition to the lectures by teachers, lectures are often delivered on subjects of interest by leading citizens of the community. During the school year 1912–13 it is estimated that a half million people heard one or more of these lectures.

The Philippine Bureau of Education as a publicity medium.—It was early recognized by the authorities of the government that the bureau of education was in a position to circulate useful information among the people on any subject of importance. The Philippine bureau of education, as an agent for the bureau of lands, has disseminated information relative to the homestead laws. It has assisted the bureau of posts in familiarizing the people generally with the organization and benefits of the postal savings bank. It has assisted the bureau of public works in teaching the value and importance of good roads, and at various times, acting under the direction of superior authority, it has taught in the public schools facts that should be generally known to the people of the country. The disposition of the Filipino people to give attention to the lessons learned by their children in school has made it comparatively easy for the bureau of education to do the work successfully.

The athletic program of the bureau of education.—The athletic program of the bureau of education has been most effective. Attention has been given not only to specialized forms of athletics, in which only a small percentage can take part to advantage, but also to a system of group games in which every normal boy and girl can without difficulty take part. It is believed that at the present time fully 80 per cent of all the pupils enrolled are receiving instruction in athletics and physical training in one way or another. The influence of this campaign has extended far beyond the public schools, and one rarely finds a back lot not filled with children playing games which they have learned directly or indirectly from the public schools. Filipinos have become generally devoted to wholesome sport. There is a noticeable physical development on every hand, and the moral influence of clean, healthy sports is to be seen everywhere. The rank and file of the people follow these sports with the greatest interest and enthusiasm, and this desire to excel in play is extending itself day by day to other local interests.

Village improvement societies and instruction in civics.—The Philippine bureau of education has since its organization given particular attention to instruction in the rights and duties of citizens of the Philippine Islands. A fairly satisfactory text has been secured for use in the intermediate grades, and outlines have been prepared covering the work in civics in the primary grades. At the beginning of the school year 1913–14 a very definite outline on this subject was issued for distribution to all the schools of the islands.

The organization of village improvement societies in the various schools has been encouraged for a number of years. These societies discuss many questions of local interest, including roads, sanitation, drainage, public buildings, etc.

THE EXTENT OF ENGLISH SPEECH IN THE PHILIPPINES.

It is difficult to estimate with any degree of exactness the amount of English spoken in the Philippines. It is safe to say, however, that the knowledge of English is far more general than the knowledge of Spanish.

Reference to the reports of the director of civil service shows that 7,755 applicants took examinations in English and 954 in Spanish during the fiscal year ending July 1, 1913. Of those taking the examinations in English 23 per cent passed, and of those taking the examination in Spanish 19 per cent qualified. Five years ago the number taking the examination in English was 4,223, and in Spanish 1,975, while in the year ending July 1, 1904, 2,443 were examined in English and 3,011 in Spanish. The Spanish applicants are in most cases men either educated in private schools or educated prior to the American occupation, whereas those examined in English are almost entirely the product of the public schools.

CONSTRUCTION OF SCHOOL BUILDINGS, ACQUISITION OF SITES, ETC.

The authorities of the Philippine bureau of education were compelled to give early attention to the question of housing public schools. The schools inherited from the Spanish régime a number of old school buildings of mediæval type.

A few special plans were made and school buildings constructed, but progress was not satisfactory until 1909, when Act No. 1914 was passed. This act provided that the preparation and approval of plans for buildings to be constructed under the terms of the Gabaldon Act should be under the direction of the secretary of public instruction. The secretary of public instruction immediately authorized the formation of a buildings division in the bureau of education and the preparation of plans for buildings which could be constructed with the limited funds at the command of the government. With the advice and assistance of the consulting architect this division prepared plans for standard one-story school buildings of reinforced concrete, with iron roofs, and timber of satisfactory grade. A series of plans were made providing for buildings of from 1 to 20 rooms. These plans were so framed that the construction of additional rooms is possible without destroying the symmetry of the building. During 1910 these plans were perfected, and arrangements were made for the construction of a large number of buildings.

Since that time the progress in construction of permanent buildings has been very encouraging. There has been a demand from every quarter for insular assistance, and the number of buildings has been limited only by the amount of money at the disposition of this bureau.

Since the passage of the Gabaldon Act in 1907, permanent concrete school buildings to the number of 306 have been erected, containing 780 rooms; 26 were constructed during the six months ending December 31, 1913. There are at present in possession of the various branches of the government 618 permanent school buildings, representing 3,252 rooms.

There are now in possession of the Philippine bureau of education, all in usable condition, 26 trade school and manual training buildings of permanent type, 22 provincial high schools, and 3 dormitories for girls.

TEXTBOOKS AND PUBLICATIONS.

When the schools were opened after the American occupation of the Philippines the English textbooks which were particularly adapted to school work in the United States were found unsuitable for use in this country. It was therefore necessary to give early attention to the preparation of textbooks adapted to use in the Philippines.

At the present time all of the books used in the primary and intermediate grades, with the exception of music books and supplementary readers, have been prepared expressly for use in Philippine schools. In the high schools some of the texts have been prepared particularly for Philippine use.

The Philippine Craftsman, an industrial magazine published by the bureau of education, has had a very favorable reception. The first number appeared in July, 1912, and the magazine is now in the second volume. Its place in the public-school system is important. Through this medium is communicated to the field industrial notes and methods which it would be difficult to distribute to the entire field promptly without preparing special bulletins or texts.

The various publications of the bureau of education have received very favorable mention not only from educators in the United States, but from other parts of the world, particularly the oriental countries and dependencies, where conditions are similar to those found in the Philippines. It is therefore probable that the effects of the school work in the Philippines will later be reflected somewhat in the system evolved in surrounding countries.

EDUCATIONAL WORK AMONG THE NONCHRISTIAN PEOPLES.

The appropriations of the Philippine Commission have made possible the prosecution of school work among the peoples living within the so-called non-Christian Provinces of the Mountain Province, Nueva Vizcaya, and Agusan. Living outside the so-called non-Christian Provinces is a considerable number of non-Christians, among some of whom educational work has been done.

School work among the non-Christians living in Christian Provinces is carried on by means of direct allotments from the appropriation of the bureau of education and with such assistance as the Provinces may give from the non-Christian inhabitant fund at their disposition. Educational work among the Tinguianes has been most successful from the start. The best known of the schools for these people is located at Lagangilang, Ilocos Sur, and the instruction is largely industrial in nature. Several attempts have been made to extend the public-school system to the Negritos. The results have not usually justified the expenditure.

Divisions, districts, and schools.

Number of divisions		36
Number of supervising districts		257
Primary schools	3,924	
Intermediate schools	278	
Secondary schools	44	
		4,246
Number of schools in 1912–13		2,934
Increase in number of schools		1,312

Enrollment and attendance.

	Annual enrollment.	Average monthly enrollment.	Average daily attendance.
Primary	575,200	462,471	400,163
Intermediate	36,845	33,032	31,046
Secondary	6,433	5,876	5,648
Total	618,478	501,379	436,857

Trade schools and shops.

Number of trade schools	18
Number of provincial school shops (intermediate)	24
Number of municipal school shops (intermediate)	121
Number of municipal school shops (primary)	215

Secondary schools.

Full secondary course	16
Three-year secondary course	19
Two-year secondary course	32
One-year secondary course	44

Field course.

Number of supervising teachers:		
Industrial	87	
Supervisors	305	
		392
Number of American supervising teachers:		
Industrial	47	
Supervisors	175	
		222
Total number of—		
American teachers		609
Insular Filipino teachers		1,236
Municipal teachers		7,559
Aspirantes		72

Distribution of teachers.

	American.	Filipino insular.
Primary	17	357
Intermediate	140	417
Secondary	158	11
Industrial	119	326
Supervising	175	125

Graduates.

Year.	Primary.	Intermediate.	Secondary.
Before 1907–8	[1] 10,000	[1] 700	3
In year 1907–8	4,954	1,051	10
1908–9	7,254	1,526	[1] 88
1909–10	9,992	2,108	122
1910–11	11,760	2,436	222
1911–12	11,200	3,062	221
1912–13	15,040	4,695	342
1913–14	15,976	4,585	407
Total	86,176	20,163	1,415

[1] Approximately.

Service of American teachers.

The average number of years of service in the bureau of education on Dec. 31, 1913, was 5 years, 8 months, and 25 days.

Number arriving before Dec. 31, 1901, who are still in the service as teachers	87
Number arriving before Dec. 31, 1901, still in the service of the bureau of education other than as teachers	22
Number arriving in the islands for the school year 1912–13	133
Number arriving in the islands for the school year 1913–14	89

School and home garden.

	School gardens.	Home gardens.
For the school year—		
1910–11		10,330
1911–12	2,570	22,958
1912–13	2,310	35,719
1913–14	[1] 3,100	[1] 39,900

[1] Approximately.

Appropriations.

Statement of total expenditures for school purposes during an average 12-month period, 1912–13—Insular, provincial, municipal, and miscellaneous. Municipal and provincial expenditures are for the calendar year; insular expenditures and voluntary contributions are for the fiscal year.

Insular:		
Expenditures for salaries, wages, and contingent		₱3,686,400.96
General allotment	₱3,620,000.00	
Additional allotment	20,000.00	
Act 2186, non-Christian	117,850.00	
Act 2208, non-Christian	126,850.00	
Balance for fiscal year 1912	5,401.22	
Total	3,890,101.22	
Transfer to teachers camp	6,000.00	
		15,700.26
Balance unexpended, June 30, 1913	3,884,101.22	
Net expenditures	3,868,400.96	
School of household industries, Acts 2110 and 2218		46,707.43
Municipal teacher pensionados, Act 2048		46,887.12
Government pupils, Act 2134		29,039.30
Bagnio teachers' camp, Acts 1994 and 2182		124,899.10
Construction of schools—		
Act 1988	36,000.00	
Act 1954	10,433.83	
Act 2029	185,503.67	
Act 2059	43,008.41	
Act 2070	4,991.21	
Act 2194	25,000.00	
Act 2262	50,000.00	
Schoolhouse construction, total		354,937.12
Total insular		4,470,871.03

Provincial expenditures for school purposes	₱183,285.63
Municipal expenditures for school purposes	2,211,091.36
Miscellaneous: Voluntary contributions for schools not counted above	198,544.46
Grand total	7,063,792.40
Cost of education per capita of total population (census of 1903)	.94
Cost of education per pupil (based on average monthly enrollment)	21.42

Graduates of insular schools who have entered work for which they studied.

Philippine Normal School	per cent	80
Philippine School of Commerce	do	100
Philippine School of Arts and Trades	do	90

Special schools.

(*a*) Agricultural schools	4
(*b*) Farm schools	8
(*c*) Settlement farm schools	47
(*d*) Industrial schools (except insular schools)	8
Total	67

FRANK RUSSELL WHITE.

By the death of Director Frank Russell White on August 17, 1913, the Philippine bureau of education particularly, and the Philippine government in general, suffered an irreparable loss.

Mr. White was one of the pioneers in the educational work of the Philippines. He was appointed a teacher on May 15, 1901, and arrived in Manila on the transport *Sheridan* on June 22, 1901. On October 1 of the same year he was promoted to the position of deputy superintendent of the Province of Tarlac, and on November 1, 1902, was made division superintendent of schools for Tarlac. He remained in this position until February 5, 1903, when he was transferred to the division superintendency of the Province of Antique. Before he took over the work of that division, however, he was brought into the general office of the bureau (Mar. 7, 1903) and appointed assistant to the general superintendent of education. On October 26, 1905, he became the second assistant director of education, and was appointed to direct the school work of the Philippines as director of education on December 1, 1909.

The record of the last 12 years of Mr. White's life forms an interesting and important chapter in the annals of the bureau of education and its work. To his conscientious efforts may be largely attributed the phenomenal growth and high efficiency of the school system of the Philippines. Few men associated with this Government have reflected greater credit upon their country.

CHAPTER XXIX.

EDUCATION IN CANADA.[1]

By Anna Tolman Smith,
Specialist in Foreign Educational Systems.

Contents.—General activity—Salient particulars in the record of individual Provinces: Ontario, Quebec, New Brunswick, Nova Scotia, Prince Edward Island, the western Provinces—The bilingual question—Appropriation for agricultural education—Summarized statistics.

GENERAL ACTIVITY.

The current record of education in the Canadian Provinces shows a continuance of general efforts for the increase and improvement of elementary schools, and the rise of new activities. The latter have been stimulated by an appropriation of $10,000,000 from the consolidated revenue fund of Canada, to be paid out during the period of 10 years beginning with the year ending March 31, 1914. This fund is to aid farming industry by instruction in agriculture, including work to be carried on by veterinary colleges.

The report of the royal commission on industrial training and technical education, appointed in 1910, was not completed until the current year; the recommendations called for an annual appropriation of $3,000,000 for a period of 10 years to be paid into a Dominion development fund; 75 per cent of this is to go to the Provinces direct, on a per capita basis and the remaining 25 per cent to be retained for expenses through a central Dominion board. The fund is intended to aid all phases of industrial work, including agriculture, manufacturing, household science, etc. The commission advised also that a fund not less than $350,000 a year should be created for the encouragement of—

handiwork, drawing, domestic science, etc., in elementary schools in the different Provinces. This large scheme, which was carefully worked out in detail by the commission, has been under advisement during the year.[2]

[1] As in previous years, the chapters in this report dealing with education in foreign countries have been prepared under the general direction of the specialist in foreign educational systems from official reports and correspondence, and with the assistance of various collaborators, who are specified in connection with their several contributions.

The Report of the Commissioner of Education for 1913 brought the survey of education in foreign countries to the close of that year. On account of the European war, educational measures that were pending at the close of 1913, and plans formulated at the opening of the current year, have been deferred or suspended, and the interchange of information from official and private sources seriously interrupted. In respect therefore to the great nations involved in the conflict, the present survey covers only the seven months from January to August 1, 1914. In a measure, also, this is true of all other nations affected by this untoward event. The same cause has interfered with the usual course of events in the far eastern nations, but on account of their distance information obtained from them seldom relates to the current year.

[2] For account of the commission, see Rept. of Commis. of Educ., for 1913, Vol. I, ch. 30, pp. 687–690.

Current discussions and experiments with regard to elementary education are indicated in the main by the recommendations of the royal commission cited above. The provincial authorities are already making provision for the new subjects, but there is need of larger resources to give the general equipment and the teachers required by the extension. Everywhere the provision of schools keeps pace with the demand. This work absorbs the chief energies of the newer Provinces of the west, all of which are lavish in their appropriations for securing sites, putting up schoolhouses, and securing teachers by the offer of salaries greater than those paid in more settled communities.

The extent of the educational provision is shown by tabulated statistics at the end of this section. The following statements relate to salient features of the year's record in the individual Provinces:

SALIENT PARTICULARS IN THE RECORD OF INDIVIDUAL PROVINCES.

Ontario.—The Province of Ontario has taken the lead in the provision of continuation schools, and in connection with them the matter of vocational training has become urgent. In his recent report Mr. Mills, inspector of continuation schools, observes that they are now firmly established as a part of the educational system of Ontario, and that they take the young people at the very moment when it is desirable to give them vocational training. On this subject he says, "the public conscience is alive to the necessity for and the justice of this work." In tracing the progress of the movement for vocational training, Mr. Mills observes that in cities and towns it has resulted in the introduction of manual training and domestic economy into the ordinary schools, to be followed later by technical schools and evening classes that give practical instruction to persons engaged during the day. With respect to the conditions favorable to this work in large centers of population, he says:

> Among business men and employees active and intelligent leadership may readily be found; the money necessary to provide the accommodation, equipment, and salaries is more easily obtained; the people to be served are within easy reach of the school; and the return to both employer and employee is more apparent in a better and cheaper article and in an increase in the daily wage.
>
> * * * * * * *
>
> The problem becomes more difficult, and up to the present time very little has been done toward reaching the young men and women with any course in agriculture or domestic economy. No matter where one goes in Canada or the Northern States much is heard of what is being done toward introducing agriculture, manual training, and domestic science into the rural public schools, but when these methods are examined they are found to have little promise and to depend on the individuality of some enthusiastic teacher. So far as the teaching of agriculture in the rural schools is concerned, it can, in my opinion, never hope to accomplish more than has been accomplished by the courses in manual training and domestic science established some years ago in the public schools of large urban centers. However, as these manual

training and domestic science classes in urban centers were the forerunners of, and prepared the way for, the present technical schools and evening industrial classes, so the present agricultural work that is being done in the rural schools may be, and no doubt is, preparing the way for schools that will reach the corresponding class of young men and women in rural and small urban districts, and provide for them courses in agriculture and household science that will better prepare them for the work of the farm and the home.

In discussing possible plans Mr. Mills refers to the example of Minnesota, Wisconsin, Indiana, and other States of the United States, and the plan of traveling teachers adopted in Ireland, but he concludes that for Ontario it would be best to—

establish schools in one or more centers in each township for the express purpose of giving the young men and women instruction in agriculture and household science, and seek to make these schools centers of social life; such schools to be regarded as part of the public school system.

Quebec.—In a survey of movements in the Province of Quebec it is important to keep in mind the dual character of the public-school system. It is organized in two divisions—one comprising the Roman Catholic schools, the other the Protestant schools. The two divisions are under the general supervision of a common superintendent, but their affairs are directed by separate committees of the council of public instruction, styled, respectively, the Catholic committee and the Protestant committee. The majority of all schools, colleges, and universities—viz, 5,925, in a total of 6,856—belong to the Catholic division.

The increase in the number of normal schools pertaining to the Catholic division, and their adaptations to present demands, are features of special interest in the current record of the Province. The opening of two new normal schools in 1913 leaves but one diocese wanting in such provision. In his latest report the superintendent of public instruction mentions the spacious normal school completed in Montreal, by the Sisters of the Congregation, at a cost to the Government of $225,000, and another built for the same order at St. Pascal, Kamouraska. The latter is a normal school of household science. The oldest school of household science and agriculture in Canada—that of Roberval, Lake St. John—has also received the recommendation of the Catholic committee for its elevation to the rank of normal school of household science and agriculture. It possesses a well-cultivated farm and has achieved distinction as a center of practical education.

The establishment of Macdonald College at St. Anne de Bellevue, near Montreal, has given to the Province of Quebec one of the most important centers for the professional education of teachers in the world. The college, which was founded, equipped, and endowed by Sir William C. Macdonald, is incorporated with McGill University.

Its purposes are twofold—the advancement of education by research and investigation, and the dissemination of knowledge, with particular regard to both the needs of rural districts and the effective training of teachers, especially those who will work in the rural schools. The college property comprises 561 acres and has been divided into four main areas, viz: (1) The campus, with lawn, school garden, and recreation fields for men and women; (2) experimental grounds, with plats for illustration and research in grains, grasses, and other farm crops; (3) the small cultures farm, for horticulture and poultry keeping; and (4) the live-stock farm, extending to 387 acres. The college is organized in three sections: The school of agriculture, the school of teachers, and the school of household science. All students of the school for teachers are required to sign a pledge to teach three years in the Province.

During the year an important forward step has been taken in the enactment of legislation by which students in the schools of agriculture and household science may secure rural-school diplomas by taking a brief course of professional training.

The recent affiliation of several teaching orders with Laval University assures for certain of their schools the service of teachers having a high order of academic training. Under this arrangement the members of the orders have a university diploma which is regarded as a full equivalent for the provincial diploma, from which they are exempted.

New Brunswick.—The superintendent of education for New Brunswick calls attention to the slight decrease in the number of candidates for admission to the normal school, and also to the fact that the number of men seeking to enter the teaching service is diminishing, and expresses the fear that the Provinces may very soon be suffering from a dearth of teachers. Among the causes assigned for these conditions are the increasing opportunities for young men in agricultural pursuits and for young women in business offices. At the same time there is a steady tendency on the part of the best teachers to go west, with the expectation of obtaining larger salaries. Several school boards have met the difficulty by substantial increases in the salaries of teachers. New Brunswick has been successful in exciting an interest in school gardening. Reports from 23 districts in different counties show a flourishing condition of gardens in connection with their schools.

Nova Scotia.—The Provincial Normal College of Nova Scotia, situated at Truro, has gained wide reputation under the direction of Principal Soloan, who has brought about important relations between the college and the Truro School of Domestic Science and the Provincial Agricultural College. The college, however, is in

pressing need of enlarged accommodations for its students and also for the uses of the domestic science department.

A rural science school is conducted during July and August by the united faculties of the agricultural and normal college. The attendance in the summer session of 1913 was 90, and at the close 21 full diplomas and 55 certificates of partial preparation were issued. This means—

that some 70 or more schools than heretofore will be making an effort to establish school and home gardening as a basis for studying nature phenomena and elementary agriculture and for interpreting and appreciating neglected aspects of rural life.

Nova Scotia has a well-organized system of technical education under the general supervision of Mr. Frederic H. Sexton, who is the principal of the Technical College. This institution has an excellent laboratory for the benefit of students in mining engineering and is contributing information of great practical value in the building of good roads in the Province. Five colleges are affiliated with it, a summer school of surveying is maintained, and local schools of coal mining and engineering and evening technical schools, conducted under the general supervision of the principal of the Technical College, are reported from six centers. Classes for the training of young women in needlework, household economy, and home decoration are held in several of these centers.

Prince Edward Island, the smallest of the maritime Provinces, has recently taken a forward step by a marked improvement in teachers' salaries, which has inspired them with new hope and ambition. This spirit was reflected by a very large attendance in the teachers' association. At the annual meeting of 1913, out of a total of 583 teachers in the service, 398 were registered. Resolutions were passed thanking the Government for the increase in salaries and also for providing the summer school. The Acadian teachers of this Province have a separate association, which also had a very large attendance in the meeting of 1913. This association has exercised a great influence in promoting the correct use and pronunciation of the French language.

Summer school of science.—The Atlantic Provinces of Canada have combined in the support of a summer school of science, which held its twenty-seventh annual session at Halifax, Nova Scotia, July 8 to 29, 1913. At this meeting 225 members were enrolled as follows: Nova Scotia, 133; New Brunswick, 78; P. E. Island, 6; Quebec, 2; United States, 6. During the session four hours each morning were devoted to class work under able specialists; the afternoons, devoted to laboratory and field work; the evenings were given over to lectures and entertainments.

The students at this summer school are encouraged and stimulated by the large number of scholarships offered for competition through

the liberality of public-spirited friends of the enterprise. During the present year 68 scholarships were available—two of $50 each, three of $25 each, twenty-four of $20 each; the remainder range in value from $5 to $15 each. The receipts of the school for the session amounted to $2,042, of which $200 was granted by the Government of Nova Scotia, $100 by New Brunswick, $50 by Prince Edward Island, and $300 from the Halifax school board. The enrollment fees amounted to $1,035. The president of the association for the current year is Mr. S. A. Starrat, of Roxbury, Mass.

The Western Provinces of Canada, while presenting differences in natural resources that affect educational progress, are alike in their possession of productive lands and their consequent attraction for farmers. A continued stream of settlers pours into this section, the aggregate for the calendar year 1913 being 412,955, of whom nearly one-third were farmers or farm laborers and another third general laborers. While the rural population grows at a rapid rate, cities and towns develop with equal rapidity and become thriving centers of manufactures and trade; demands for the appliances of modern life, such as sanitary systems, good roads, good schools, rise faster than they can be met. Under such conditions school systems may reach high development in urban centers, while the provision of schools and teachers can not keep pace with the spreading rural population. The salient particulars in the current reports of education in the chief cities fairly indicate, therefore, the spirit of progress throughout the western Provinces.

Vancouver, the largest city of British Columbia, has a population of 200,000, or more than one-third the entire population of the Province (502,000). During the last year the course of instruction in the high school was extended to include forge-work and tinsmith-work. The interest thus excited is indicated by the fact that a class of 32 boys who were unable to take the work in class time, on account of the pressure of preparation for the university matriculation examination, voluntarily engaged in the shopwork after school hours. In three large night classes instruction in physical training was given to 130 day-school teachers. Of this number, 111 secured certificates of qualification as teachers of physical culture, under the terms of the Strathcona trust, at the examination by the militia department, 25 graduating with honors.

The service of medical school inspection employs one medical health officer, with an assistant and four nurses.

The Legislature of British Columbia has set apart 2,000,000 acres of land as an endowment for a provincial university, a site for which has been chosen in Vancouver. The total expenditure on education for 1912–13 was $4,658,894; in 1911, $2,641,522.

Winnipeg, the capital of Manitoba, has a population of 136,035, or about 30 per cent of the entire population of the Province. This city has been noted for its ample educational provision, and during the past year extended its facilities by the establishment of two technical high schools comprising academic courses of instruction with industrial and technical branches. By the upward expansion of courses of instruction in three intermediate schools of the Province, the number of high schools has been increased to 13, and in addition there are six collegiate departments which prepare students for the university.

The capital city is the site of the University of Manitoba, founded in 1877 and registering at present 500 students, and an agricultural college which has nearly 400 students.

Alberta and Saskatchewan, both organized as independent Provinces in 1905, have large excess of rural population, but cities are rapidly growing and are well provided with facilities for education. Municipal efforts have been expended chiefly in providing school buildings and in securing teachers; at present the latter are necessarily drawn largely from the older Provinces. At the same time local normal schools have been established and well equipped for providing teachers in the future. The University of Alberta, organized in 1907, has nearly 500 students, many of whom will become teachers in the secondary schools of the Province. The University of Saskatchewan dates from the same year (1907).

THE BILINGUAL QUESTION.

The question of bilingual instruction is one of great interest in the western Provinces on account of the mixture of populations. During the current year Manitoba has been greatly agitated over this question, which also is in a measure involved with that of denominational schools. A return submitted to the legislature gave the number of children attending mono-lingual schools in the Provinces as 64,126 and those attending bilingual schools as 12,473. It is estimated that there are 145 schools for French settlers with 200 bilingual teachers, 75 German-Mennonite with about 85 teachers, and 107 Ruthenian, Polish, or Russian-German schools with 107 teachers.

At a convention of bilingual teachers held at St. Boniface on October 18 the French Canadians stood firmly by their bilingual schools. Early in the same year a provincial school trustees' convention held at Winnipeg passed a resolution providing that wherever 12 scholars whose mother tongue is French attend a school "such pupils shall have instruction in French, in addition to English, provided the parents of said pupils shall make a request to the trustees for such additional instruction."

APPROPRIATION FOR AGRICULTURAL EDUCATION.

The chief event of the year in respect to education in the Canadian Dominion was the passage of the bill already referred to, providing an appropriation of $10,000,000 for the encouragement of agricultural instruction. In his speech supporting this measure, Hon. Martin Burrell, minister of agriculture, said:

> In so far as this Federal Government is concerned, we have come to the conclusion that we can best help on this great work by freely and generously assisting the cause of agricultural education. If we are told that this is an innovation, we answer that it is the people's money, drawn from them, and that it is not only defensible but desirable that such money should be spent in what we believe to be the most efficient way to attain the objects referred to. In choosing education or instruction as a desirable line which Federal expenditure should take, we are following the best methods of the most progressive countries. We propose to develop what we call the direct work of the Federal department by assisting and developing the live-stock, dairying, fruit-growing and other industries along lines of investigation, research, improvement in transportation, markets, and so on, but in respect of funds applied to education we propose to follow what may fairly be termed constitutional lines, using and strengthening the machinery already existing in the Provinces, or by them properly established. It is proposed by the bill to strengthen all lines of instructional and educational work. The particular form such assistance may take may vary with the special needs and conditions in each Province. It will embrace the increasing of the efficiency and equipment of our agricultural colleges; the establishment of agricultural schools, of dairy and horticultural schools, of short courses in agriculture; the initiation of agricultural teaching in public schools and work by traveling or located qualified instructors. It might well include the valuable educational work carried on by means of demonstration trains, the training of teachers in nature study, and the invaluable work of domestic science concerned with the women and girls of our communities.

The expenditure of this money is to be extended over 10 years, the amounts being allotted to the several Provinces yearly in proportion to their population. The plan was generally approved, and by the close of the year all the Provinces had accepted their allotments and had agreed with the Dominion departments as to forms of expenditure. The sum received by each Province for the year ending March 31, 1914, was as follows:

Ontario	$175,733
Quebec	139,482
Nova Scotia	34,288
New Brunswick	24,509
British Columbia	27,334
Manitoba	31,730
Saskatchewan	34,296
Alberta	26,094

Statistics of public schools, Canada.

Provinces.	Population.	Date of census.	Date of school statistics.	Enrollment.			Ratio of enrollment to population.	Teachers.			Expenditure.
				Boys.	Girls.	Total.		Men.	Women.	Total.	
							Per cent.				
Ontario	2,523,274	1911	1912	239,187	227,835	467,022	19.00	1,511	9,246	10,757	$11,273,960
Quebec	2,002,712	1911	1912–13	193,478	207,976	401,454	20.04	1,886	11,386	13,272	4,538,225
Nova Scotia	492,338	1911	1913	.....	.....	105,269	21.30	278	2,883	3,161	1,439,654
New Brunswick	351,889	1911	1912–13	.....	.....	69,663	20.00	194	1,826	2,020	1,009,335
Manitoba	455,000	1911	1913	.....	.....	83,679	18.38	500	2,464	2,964	[1] 5,036,794
British Columbia	392,480	1911	1912–13	29,554	27,840	57,384	15.80	406	1,191	1,597	[2] 4,658,895
Prince Edward Island	93,728	1911	1912–13	9,186	8,359	17,555	19.00	161	422	583	207,605
Alberta	373,000	1911	1911	.....	.....	61,660	16.50	.....	.....	2,651	2,085,056
Saskatchewan	492,432	1911	1911	36,926	33,641	70,567	14.33	1,316	2,175	3,491	3,993,000

[1] Includes $1,420,881 for buildings, and $1,229,171 for payments on notes, debentures, etc.

[2] Includes $630,964 for sites, buildings, etc.

Universities of Canada.

Names.	Location.	Students, 1913.
Ontario:		
McMaster University	Toronto	354
University of Ottawa	Ottawa	683
Queen's University	Kingston	304
University of Toronto	Toronto	4,141
Western University	London	235
Quebec:		
University of Bishop's College	Lennoxville	61
Laval University	Montreal	[1] 1,624
Laval University	Quebec	474
McGill University	Montreal	2,213
New Brunswick:		
University of New Brunswick	Fredericton	200
University of Mount Allison	Sackville	233
Nova Scotia:		
Acadia University	Wolfville	243
Dalhousie University	Halifax	400
University of King's College	Windsor	67
University of St. Francis Xavier	Antigonish	225
Alberta:		
University of Alberta	Edmonton	434
Saskatchewan:		
University of Saskatchewan	Saskatoon	242
Manitoba:		
University of Manitoba	Winnipeg	801
British Columbia:		
University of British Columbia	Vancouver	[2]

[1] Includes 496 in the Superior School for Young Women.
[2] Organized in 1912, to be opened for students in 1915.

CHAPTER XXX.

EDUCATION IN THE CENTRAL AND SOUTH AMERICAN STATES.

CONTENTS.—Progress in Central America and Panama—States of South America: Introduction; educational conditions—International relations—Exchange of students between the States—The Normal School of Commerce at Montevideo.

PROGRESS IN CENTRAL AMERICA.

All reports and advices from the States of Central America show increasing efforts to extend primary education. Official reports for 1913 give for Guatemala an enrollment of 61,163 pupils in primary schools, an increase of nearly 4,000 since 1911; in Nicaragua the enrollment reported for the same year was 31,000, an increase of 2,000 pupils in two years; for Costa Rica the enrollment was 33,084, as against 29,904 in 1911. In each of the States named the progress appears to be due to the opening of new schools where none existed before.

A movement in rural education has been started in Costa Rica which promises important results. The experiment was begun under the direction of Sr. Brenes-Mesén, at present envoy extraordinary and minister plenipotentiary to the United States from Costa Rica, and formerly undersecretary of public instruction in that State. During a tour of investigation in the United States Señor Brenes-Mesén was impressed with the instruction in community industries as carried out in several rural schools, and on his return to his own country, he started a school on the same general plan, with adaptations required by the different conditions of climate and productions.

At the request of the Commissioner of Education he has prepared the following account of this experiment:[1]

Some 4 miles, approximately, from the capital is found the school of San Vicente, which, as it united certain entirely local conditions, was chosen to carry out the most important of the experiments. Around the building there is a small field of

[1] In the letter to the commissioner accompanying the report Sr. Brenes-Mesén says: "When, two years ago, I had the honor to approach you to solicit a letter of introduction which opened to me all schools and facilitated my study of them, I had conceived the plan of a rural school which would solve as satisfactorily as possible our agricultural and social problems. My journey had for its object to investigate the means employed in the United States to obtain the same result, and, although I did not find a model which might serve definitely, I did find in exchange all the elements and all the data which would contribute to determine the bases of the experiments which I described to you and which I will try to set forth again in this brief report for which you have so kindly asked me."

some few thousand square meters; it was destined for a garden and orchard in the care of the girls. About one-half a kilometer's distance from the building a field of 2 hectares was devoted to agricultural experiments. From the very first moment one of the conditions desired was obtained—the collaboration of those living near the school district in the work of the school children. Because, as they were informed of the purpose which was sought—a result which was obtained in a conference that took place with the members of the school commission—their cooperation began; neighbors of the place helped the children to fence in the land, and from that time on their interest increased.

The field was divided into sections, once it was clear, and they were devoted, some to the cultivation of the ordinary products of the locality, in two distinct classes, in conformity with traditional customs and in conformity with the advice of the department of agriculture, in order that the people might be convinced, practically, of the advantages and difficulties of the two proceedings; other portions were destined for experiments in new cultivation in the locality. In the school at San Vicente wheat was experimented with, and it turned out to be of excellent quality, though it is not cultivated on either a great or small scale in the fields of the neighborhood.

To this work the hours of the morning were devoted; the children worked in groups that were responsible for the task given to them. An exact account was kept of the value of the work and the products according to the current market prices, and the value of the hours of work of the students was computed. All these calculations were the basis of exercises in arithmetic and geometry. The problems arose in the same field as the herbs and the flowers. There the pupils sang and had their education in physics; there they learned botany and agriculture, zoology and meteorology, applied to life, avoiding unnecessary technicalities. The themes of conversation and composition were produced there without distinction of hours, but mingled with the life of every moment of rural activity.

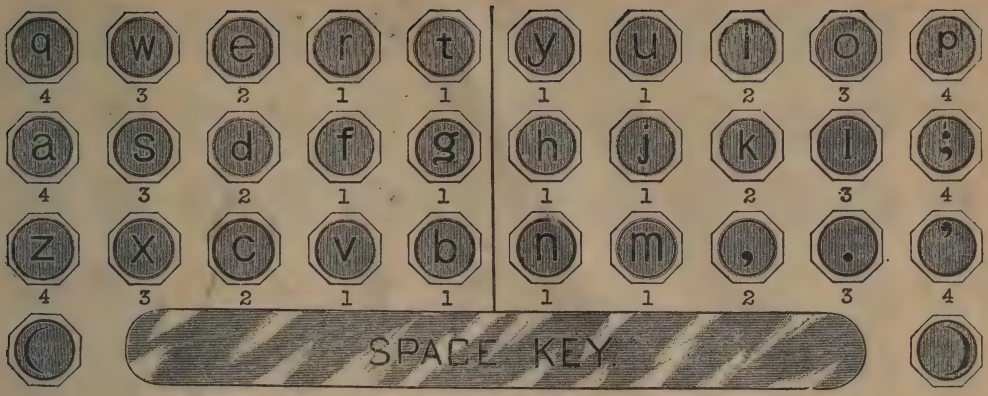
During the noon hours materials were distributed in such a way that they filled the idle time that had been noted in the daily work, and the partial explanations which had been made were completed. A preponderant position was occupied by such manual work as was adequate for satisfying the necessities of the school in the first term—repairing objects in a bad condition, constructing measures and handles, adjusting floors, whitening walls, making boxes for containing the products, rope, etc.

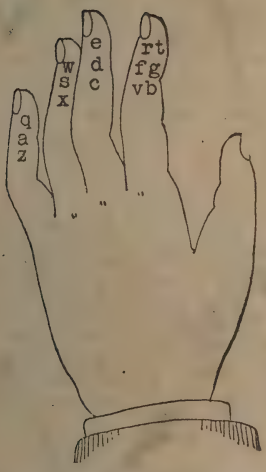
The girls, for their part, divided their time between work in the kitchen, sewing, and learning common matters, subordinating them to the necessities of their daily life. Some time during each week was given to gardening and some hours to making simple garments, after the pupils had learned to cut them, making use of measures.

Forty children from the school, breakfasted daily in the dining hall of the school with the food prepared by the girls during the kitchen lesson. The purpose of this lesson was simply that of learning to cook with the elements used in all the farmhouses, in the most suitable way for safe and agreeable nourishment. The products of the field were divided in two groups—those which were destined for the school kitchen and those which were sent to be sold on the school's account.

Among the 40 children—boys and girls—the poorest always breakfasted in the school, and, alternately with them, 4 or 6 of the richest of the place, who were chosen during the morning according to their conduct or the accomplishment of their duties. A student who arrived late did not enjoy the privilege of sitting at the table with his companions; hence an almost perfect attendance and new resources of educational discipline. After the breakfast each student washed his plate and cover.

Both the classes in sewing and in kitchen were made so interesting that several ladies of the place attended in order to learn what they needed to satisfy their own necessities. The school festivals, with the assistance of the authorities, attracted the neighbors, so that the school in this way was converted into a small center of popular culture.



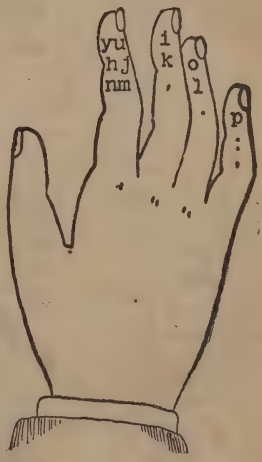


LESSON IV

As there are no vowels in the lower row of keys no words can be written with the letters of that row alone. This lesson will give practice on all the lower case letters.

Strike the keys with the fingers shown in the diagrams, and space with both thumbs as heretofore directed. Keep the small fingers resting on or immediately over the guide letters.

To fix in mind the location of the keys write five lines of the letters and punctuation points in the lower row, commencing at the left and spacing after b and the apostrophe. Care should be taken to strike the punctuation points lightly.



Continue the practice on the following exercise until the location of every lower case letter is fixed in the mind.

EXERCISE

zeal	vanish	namely	active	given	receive
zealous	varnish	near	among	gone	reflex
zest	vice	neither	animal	hazard	seize
zone	voice	news	approximate	human	sixteen
calculate	voter	nominate	divert	inform	strong
campaign	backward	none	discover	important	taxation
complex	become	number	earnings	judgment	tenement
compound	belief	numerous	equalize	kindred	time
condemn	belong	mammoth	evacuate	land	watchman
continual	blast	marble	examine	license	weave
costly	bomb	mighty	exchange	occur	window
curious	books	mileage	exhibit	probable	wizard
curtail	business	mines	find	procure	woman
cycle	busy	most	favor	quick	wonder
valiant	navigate	much	fixture	quorum	yacht

LESSON IX

Practice the following words containing terminations.

EXERCISE ON TERMINATIONS

annotation	active	accessible	asking	artful
application	attentive	attainable	banking	careful
caution	cumulative	fashionable	calling	cheerful
faction	dative	legible	dividing	doubtful
institution	elective	liable	folding	fruitful
mention	incentive	peaceable	giving	helpful
nation	inventive	permissible	making	hopeful
notation	motive	profitable	putting	plentiful
option	native	sensible	separating	powerful
oration	operative	trouble	thinking	useful
situation	receptive	valuable	trading	wakeful
valuation	respective	variable	voting	watchful
concession	abusive	ailment	affirmed	aptness
decision	cohesive	announcement	credited	boldness
excursion	corrosive	apartment	explained	business
fusion	decisive	augment	fixed	calmness
incision	excessive	basement	hunted	clearness
mission	explosive	cement	looked	fineness
occasion	extensive	comment	noted	fitness
passion	illusive	element	opened	greatness
possession	massive	judgment	referred	kindness
revision	offensive	regiment	seated	meanness
succession	passive	segment	taxed	neatness
tension	pensive	statement	traced	rashness
capture	anxious	brutally	contrary	comical
creature	audacious	centrally	elementary	dental
culture	cautious	conically	library	equal
furniture	dangerous	logically	literary	final
future	ludicrous	medially	necessary	initial
lecture	noxious	mentally	ordinary	legal
mixture	numerous	mortally	primary	local
moisture	pious	officially	rotary	logical
overture	sagacious	rationally	salary	mental
picture	scrupulous	specially	secondary	rational
rapture	serious	tally	temporary	rental
structure	spacious	typically	voluntary	special

Some of the girls began to be interested in barnyard fowls, and it was our intention to appoint others to the care of bees. At the end of the first year of this experiment, a cow was selected for observation, with the plan to buy it and improve its condition by care and nourishment so that the children might have a direct observation of the change produced in the animal as a consequence of the change of conditions.

The results of this experiment lead me to the following conclusions:

1. The ordinary rural school, a modification of the urban school, does not arouse the interest of rural populations, and for this reason does not receive their support, and on the other hand the rural school, organized as an end to itself and inspired from the principle that the school does not prepare for life, but that it is a fragment of life itself, worthy of being lived in reality, is converted into a center of cultural education.

2. Dignifying the tasks of the field is the most efficacious method of avoiding the depopulation of the fields.

3. The rural school must be endowed with the greatest flexibility, to fit itself to the necessities of each locality, and it must not be constructed on the same pattern as a piece of machinery.

4. The feeding of poor children within the school attracts the greatest consideration and sympathy of the rural population, and the rich people of the place feel themselves impelled to protect, defend, and improve it.

5. The school farm greatly favors the extension of postscholastic culture of an economic and social character.

It entered into my plan, collaborating with the department of agriculture, to place within the rural school the elements of savings banks for agricultural purposes. It is possible that my successor may introduce this improvement.

The Government of Panama has adopted measures in accordance with a law passed by the last Congress, for the establishment of two agricultural schools in the State. An agronomical engineer from Paris, Mr. J. René Piot, has been chosen as director of one of the institutions, and it is understood that the other will be an American, if possible, who is an expert in tropical cultivation. Mr. Piot has been engaged in perfecting plans for the buildings and grounds for the first school, to be located near New Gorgona.

It is proposed also that an agricultural experiment station shall be established as soon as possible. By a presidential decree issued in 1913 a night school for adults has been opened in Panama City, in which instruction has been given in languages, writing, drawing, history, arithmetic, geography, etc., to all males over 15 years of age, on all week days, except Thursdays, from 7 to 9 p. m.

A second decree issued in 1913 provides for the reform of the course of study in the National Institute and Normal School for Women.

STATES OF SOUTH AMERICA.

INTRODUCTION.

The importance of closer relations between the United States and the South American countries has been emphasized by the completion of the Panama Canal and by the changes in commercial relations resulting from the war in Europe. These events have also given impetus to the efforts in those countries for promoting popular education, especially in its relation to industrial progress. In

many of the States these efforts are interrupted by political disturbances and are hindered by the lack of financial resources; in other States educational activity is steady and well supported, at least in particular districts and populous centers. The increase of population by immigration is an important factor in the development of several of the South American countries, notably Argentina, Uruguay, and certain States of Brazil. All of these have offered inducements to settlers in the way of favorable terms for farm lands, distribution of seeds, and aid in securing implements and stock. Many colonies of farmers and farm laborers, chiefly from Italy, Portugal, and Germany have been established, and these newcomers are eager to secure for their children education and opportunity in the New World.

EDUCATIONAL CONDITIONS.

Theoretically every State of South America has a comprehensive system of education, including elementary and secondary schools and higher institutions. The traditional regard for the education of a select class has been accompanied by indifference to popular education; so that while secondary schools and universities have been supported,[1] primary education for the masses has been neglected. At the present time, there is a general movement throughout South America to overcome this tendency; but the lack of comprehensive surveys makes it difficult to show the actual condition. In the leading States investigation has recently been made for the purpose of obtaining accurate information respecting the provision of elementary schools and school attendance. The most complete statement thus far issued covering the subject was comprised in the third census of Argentina. According to estimates based upon that census, the population of this State in 1912 was about 7,500,000, of whom 30,000 were Indians. The new arrivals in the country during that year numbered 287,000 (165,662 Italians; 80,583 Spaniards). Educational statistics for the same year show an enrollment in public primary schools of 666,049 pupils; in private primary schools of 113,944, a total enrollment equivalent to 10.3 per cent of the population.

Brazil has a land area greater than that of the United States, omitting the outlying possessions of the latter. Its estimated population in 1913 was 24,308,219, the average density of population being 5.4 per square mile; in the Federal District the density reaches 1,359 per square mile, but of the several States only six exceed 20 inhabitants to a square mile. The population is not only widely scattered in the greater part of the country, but is in a low state of

[1] See Bureau of Education, Bulletin, 1912, No. 30, Latin-American Universities and Special Schools. For list of South American Universities, see Report, 1913, Vol. I, ch. 30, pp. 714–716. To the list should be added Peru: Universidad Mayor de San Marcos de Lima, and Universidad del Cuzco.

intellectual and industrial advancement, which renders the spread of education extremely difficult. The eastern States, however, are active in promoting both primary and industrial education, and the cities on the coast compare favorably with cities of the leading nations in the number and equipment of their public schools.

Rio de Janeiro, the capital of Brazil, is noted for its fine school buildings, which are specially adapted to the tropical climate. A characteristic type is illustrated by the Escola Ferreira Vianna, which occupies a one-story building with windows opening on all sides; the spacious grounds afford ample room for recreation, and also for decorative plants, shrubbery, and shade trees. All the classrooms are well supplied with modern appliances, globes, maps, charts, blackboards, etc., and are adorned with pictures, including the portraits of eminent men.

Among schools arranged for open-air classes is the Escola Campos Salles, which is situated in the midst of a beautiful grove, where noonday lunch is served to the children.

At the head of the system of public education in Rio de Janeiro are two technical schools, one for boys, the other for girls; these schools are supplied with workshops, finely equipped drawing rooms, and all the needed appliances for teaching manual arts, specialized according to the careers open to boys and girls respectively. The girls are trained in dressmaking, millinery, and laundry work. A special feature of the technical school for boys is the military drill, which is conducted by officers detailed for that purpose. The military band of this school is often called to take part in competitive exercises.

The city maintains a fine service of medical inspection for its schools, in which respect, however, it is fully equaled by the city of Sao Paulo, as well as by Buenos Aires and Montevideo in the neighboring States.

The statistical bureau of Chile, in its report published in 1913, brings the survey of the country down to December 31, 1912. The population at that date was 3,505,317, an increase of 256,038 above the total given in the census of 1907. Primary schools to the number of 2,947 are supported by the Government, which also subsidizes 302 private primary schools; the enrollment in the Government schools in 1912 was 287,115; in subsidized primary schools, 36,577. For secondary education there are 78 liceos, of which 40 are for boys and 30 for girls. There are also 44 monastery or convent schools of secondary grade, which receive no aid from the State, and 79 private secondary institutions aided by the State.

The importance of commercial education is indicated by the fact that there are 11 institutions having this order of instruction; these are supported in whole or in part by the Government. The Instituto Superior de Comercio ranks high among schools of this class.

Provision for technical and industrial education for boys is made by numerous well-equipped institutions, which enrolled in 1912 a total of 6,368 students. In the vocational schools for girls, of corresponding grade, there were 4,414 students.

Recently great interest has been shown in physical culture and manual training; it is estimated that 22,000 pupils receive instruction in the use of tools in the workshops annexed to public schools and 6,500 pupils similar training in special schools.

For higher education there is a State university at Santiago registering annually about 2,000 students and a Catholic university at the same city with about 250 students. During the current year the Chilean Government developed a comprehensive scheme of public buildings to be carried out in 10 years, at a total cost of $22,995,000. The work is in charge of the general inspector of architecture at Santiago, and includes, in addition to several important Government buildings, many public schoolhouses. The latter are indispensable for the realization of plans for increasing school attendance adopted by the Government in 1913. In accordance with these plans, appropriations for the schools have been increased, amounting in round numbers to $8,000,000 for the current year.

INTERNATIONAL RELATIONS.

The policy of sending selected students, at Government expense, to complete their liberal or professional studies in foreign countries, is one of long standing in the States of both Central and South America. Preference has generally been given to French or German universities and technical schools, the choice having been determined partly by the reputation of the institutions and partly by racial and intellectual sympathies. The latter have been promoted by the influence of young men and women of wealthy families who in large numbers are sent to European schools and by the immediate efforts of professors and teachers from European countries who are found in many of the chief institutions of Latin America.

For the promotion of intellectual relations with the countries considered, France maintains a regular organization, the "Groupement des Universités et Grandes Ecoles de France pour Rapports avec l'Amérique Latine." This work is conducted under university auspices, with aid from the Government, and is carried on by the exchange of professors, by publications, and by the agency of a permanent office in Paris which comprises a library of works having to do with Latin-American affairs.

For the information of students of those countries the organization has prepared a manual in the Spanish language relating to the universities and special schools of France. This publication is freely circulated in South and Central America.

In a less formal manner a knowledge of German institutions is brought to the attention of the student world of South America, and the educational methods and system of Germany have been impressed upon important institutions at several centers by the employment of professors from that country.

In this respect the influence of the United States upon the States of Latin America is comparatively small, although there appears to be an increasing disposition to assign students to the colleges and technical schools in this country.

Apart from Government action in this matter, many parents, especially in Mexico and Central America, who send their sons and daughters abroad to finish their education, prefer schools in the United States. This choice is generally determined by religious sympathies. Catholic schools in California are particularly attractive, and representatives of the College of Christian Brothers, St. Louis, Mo., and nuns from the Convents of the Sacred Heart in that city and St. Charles have been successful by their personal influence in securing students from Mexico and other Latin States for those institutions.

The following statements indicate means by which the foreign relations are promoted at present:

Chile.—The Pedagogic Institute at Santiago de Chile has been a center of German influence from its origin in 1813, when the faculty was largely drawn from that country. There are at present 35 German colleges in that Republic; the Chilean Army has German instructors and sends a number of officers yearly to Germany for military instruction.

On the occasion of the recent visit of representatives of the Boston Chamber of Commerce to Chile, Sr. Carrasco, chief of the commercial section of the department of foreign affairs, expressed the opinion that his Government would be willing to send a number of young university graduates to the United States and bear the expense of their journey. The plan is likely to be soon realized through the public spirit of a prominent Chilean, Sr. Don David Montt, resident in the United States, who has arranged to carry out the details of the scheme with the hope of bringing into closer relations the commercial interests of the two countries.

Ecuador has a number of students studying the plastic arts in Europe, and the superior board of public instruction of Quito has recently issued regulations providing that each scholarship student of this class shall forward annually to the department of public instruction of Ecuador two samples of his work in the branch of art to which he is assigned under the contract granting him a scholarship. Examples are to be exhibited in a special section of the annual exposition of fine arts held in Quito August 10. Art students not complying with these requirements will forfeit their scholarships.

The Government of Ecuador has also recently contracted for a French instructor to teach in the normal school at Ambato.

Venezuela.—An executive decree of September, 1909, created scholarship funds available for young men who are selected to pursue studies or research in foreign countries. As a rule selection is made of graduates who are prepared for advanced studies or who engage to pursue a specialty. Choice is made in every case of technical institutions of high repute. Within the last decade there has been an increase in the number of students sent to technical schools of the United States. In 1913, out of 13 student holders of Government scholarships, 9 were sent to European institutions and 4 to those of the United States. The amount allowed by the Venezuelan Government for this purpose was 58,920 bolivars ($11,371).

Paraguay has several students in the higher art institutions of Italy who send to their Government periodical reports of their progress.

As a result of the efforts for promoting scholastic relations between France and Latin America, exchanges of university professors have already been arranged as follows: In 1912, M. Sauvaire-Jourdan, professor of law at the University of Bordeaux, and Dr. Bonnet, of the Pasteur Institute, were sent to the University of Santiago de Chile. The same French professors will begin an exchange with the University of Buenos Aires in January, 1915. In both these cases the expenses of the professors are paid by the university visited. In exchange, lectures have been arranged for at the French universities by professors from Santiago and Buenos Aires. An informal exchange has taken place between France and Brazil resulting in a "Course of Brazilian studies" given by lectures at the Sorbonne, and corresponding lectures at Rio de Janeiro and Sao Paulo by professors from France.

INTERCHANGE OF STUDENTS BETWEEN LATIN-AMERICAN STATES.

Peculiar interest attaches to the exchange of students between neighboring States in South America. Six young girls of Brazil have received scholarships giving them free tuition in the normal school at Montevideo. Three of these scholarships were provided by the Government of Uruguay and the other three by the Brazilian State of Rio Grande do Sul.

Preliminary measures have been taken during the present year for the establishment of an industrial Chilean-Argentine college to prepare students for industrial posts in the two countries.

The normal schools at Santiago de Chile, at Montevideo, Uruguay, and at Sucre, Bolivia, are institutions of high repute to which many intending teachers from neighboring States go for professional training.

THE NORMAL SCHOOL OF COMMERCE, MONTEVIDEO.

The importance of the Normal School of Commerce at Montevideo, Uruguay, as a center of influence has been greatly increased by a recent executive order providing for the establishment of a museum of manufactures as an adjunct of the college. The order is as follows:

MINISTRY OF PUBLIC INSTRUCTION,
Montevideo, September 2, 1913.

The reports relating to the organization of a Museum of Manufactures in the School of Commerce having been seen, the Executive

RESOLVES:

Article I. To create in the Museum of Manufactures of the National School of Commerce a public, free, permanent, and renewable exposition of natural and industrial products of the different parts of the world which are objects of commercial transactions.

Article II. For the acquisition of those products the School of Commerce shall request from the national manufacturers free samples of the products they manufacture, together with data relative to their quality, price, sale conditions, marks, forms of requesting the article and references on the representatives for the sale in the country, offering in exchange the exhibition which is mentioned in the previous article; and the consular representatives of Uruguay shall make a similar request to the manufacturers of the countries to which they are accredited, in accord with the instructions which shall be furnished through the ministry of foreign affairs.

Article III. On receipt of samples, the National School of Commerce shall catalogue them, distributing them in the different sections in which the museum is divided, and record the industry from which each proceeds, its different species and qualities.

Article IV. Once the museum is organized, the School of Commerce shall invite the merchants and manufacturers of the country to visit it.

Article V. The expenses caused by the compliance of this resolution shall be charged to "Expenses of office, cabinets, and museum of manufactures," etc.

Article VI. Communicate, etc.

BATLLE Y. ORDONEZ
BALTASAR BRUM.
E. BARBAROUX.

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CHAPTER XXXI.

EDUCATIONAL MOVEMENTS IN GREAT BRITAIN AND IRELAND.

CONTENTS.

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Scotland: Scope of the system of public education—Statistics—Welfare activities—Edinburgh scheme for dealing with child neglect and child relief—Link between elementary and higher education—Funds for elementary education—The Carnegie Trust.
Ireland: The system of national schools—Secondary education—Technical education.

INTRODUCTION.

Great Britain and Ireland form a constitutional monarchy, comprising a population of 46,035,570 (estimated 1913), distributed as follows: England, 36,919,339; Scotland, 4,733,700; Ireland, 4,382,531. The three divisions have independent systems of education, but all are aided by Parliamentary grants. The direct control of education rests in each division with local authorities; for the administration of the grants, central departments or boards have been created with authority to determine the conditions upon which schools and school managers may share in the grants.

ENGLAND AND WALES.

EXPANSION OF THE SYSTEM OF ELEMENTARY EDUCATION.

The English system of State-aided education was limited at the beginning to elementary education, which still forms its main work. The system is based upon the Forster Act of 1870, by which the Government assumed the responsibility of seeing that every child in the Kingdom should have access to an approved elementary school. The duty of establishing these schools was placed upon local authorities, who received grants from the Government in aid of the work upon specified conditions. For the administration of the grants a central authority (committee of council) was formed, which maintained an inspection of the schools in respect to the conditions upon which the grants were allowed. The province of the Central Government in this respect and the obligation of local authorities have been greatly

extended by acts passed since 1870. Special importance attaches to the act of 1899, creating the board of education as the central agency for all the educational work carried on by the Government, and the education act of 1902, by which the local administration of the system was radically changed.

Immediately after the declaration of war the elementary education (war service superannuation) act, 1914, was passed. This measure gives the necessary authority for fulfilling a promise already made by the board of education that time given by a certificated teacher to military service or other service arising out of war will be counted equally with service in the schools for superannuation purposes. More than a thousand teachers were reported as being subject to the provisions of this act.

At the time the board of education was created, the Government was appropriating for the maintenance of elementary schools in England and Wales about £8,000,000 ($40,000,000) annually. For this purpose alone the annual grants have now reached about £12,000,000 ($60,000,000), while at least £1,200,000 ($6,000,000) additional are disbursed for purposes of secondary and technical education, which have been brought within the province of the board. During the same period the expenditure by local authorities for elementary schools has risen from about £5,000,000 to £14,000,000 ($70,000,000) and they contribute an additional £2,000,000 ($10,000,000) for the purpose of secondary and technical education. These amounts may be taken as the measure of the increase in the provision for the education of the industrial classes of England. This increase has been accompanied by a gradual breaking down of barriers between the State-aided elementary school system and the great body of private schools which formerly were limited to the children of professional classes, the landed gentry, capitalists, etc., so that social unification and the spread of democratic principles have been promoted by the natural growth of the school system established by the law of 1870.

The entire amount allowed for the service of the board of education for the year ending March 31, 1914–15, is £15,245,621 ($74,093,818). This includes the additional grants specified above.

The development fund, created by Parliamentary act of 1909, provides for the disbursement of £500,000 ($2,500,000) annually for five years ending March 31, 1915, plus such sums as may be voted by Parliament. The total amount guaranteed to the fund is £2,900,000 ($14,500,000) up to the end of the financial year 1914–15. The committee appointed to administer the fund estimate £900,000 as the expenditure from this source for purposes of agricultural research and instruction up to March 31, 1916; for forestry appropriations, largely for research and education, £350,000.

SCHOOLS AND SCHOOL ATTENDANCE.

The elementary schools recognized for grants by the board of education enrolled during the present year nearly 6,150,000 pupils and employed 170,000 teachers. In a general survey of the year, the president of the board states that the provision of elementary schools in the country is now adequate to the demand, and in many respects the conduct of the schools and the manner in which the school authorities are providing for the general welfare of the school children are highly satisfactory. The weak points in the system upon which he dwelt are the failure of the schools to retain pupils after the age limit of compulsory attendance is past, and the lack of continuation schools. In regard to the former of these deficiencies Mr. Pease said:

> Out of the 600,000 children who leave our elementary schools each year, 35,000 are half timers, 13,000 leave under the age of 13, 176,000 leave at age of 13—on their birthday or thereabouts, 336,000 leave during the age of 13, and only 40,000 remain after the age of 14. The fact that 176,000 leave at the age of 13 shows what an enormous proportion leave the very first moment they have an opportunity of doing so. Although they are to a large extent more alert than they used to be, yet they have just reached the age when they are capable of understanding the reasons and principles of what they are learning and how to apply their knowledge.

In regard to provision for continuing the education of the young, the president of the board said:

> The greatest blot on our system is that the great mass of our elementary schools have to submit to losing large numbers of their scholars just when a good teacher could do most for their mental, moral, and physical development. We have a continuation system which is purely voluntary and almost exclusively connected with evening teaching. I want to do justice to evening schools, but I would point out that in regard to the proportion of students under 18 in attendance at evening schools, only 5 per cent between 14 and 18 are estimated to be still in attendance at elementary schools, secondary schools, and other places of full-time education. Of the 2,391,000 left available for evening schools, only 14 per cent, or 334,000, are in nominal attendance during a single year. The percentage of pupils who begin at the beginning of the course and go on continuously is only 53, and while the aggregate student-hours that can be worked by juvenile students is 287,000,000, the actual is 18,500,000.

The local authorities are directly responsible for these evils, but the Government has power to hasten their correction through the control of grants-in-aid.

LEGISLATION.

Early in the year the expectation was entertained that a bill would be introduced providing for the large reform in education foreshadowed last year by the president of the board of education and by Viscount Haldane, the lord chancellor. The bill was not forthcoming. The chief educational measure pertains to financial matters and was embodied in the budget estimates submitted by Mr.

Pease, president of the board. His proposition was twofold; it called for a reorganization of the grants for specific purposes. Eventually the measure was divided, and attention for the time directed wholly to the additional grants. The estimates for the latter received the royal assent July 31, and the portion of the grant for the four months ending December 31, namely, £515,000 ($2,503,000), became immediately available. This amount is to be applied to the relief of local school taxes (the "Necessitous Areas Grant") and to the maintenance of medical inspection, medical treatment, provision of meals, etc. The former purpose absorbs £438,000 of the supplementary vote; the latter, the remaining £77,000, raising the entire amount for the medical service for the current year to £252,000 ($1,127,520).

The "Education (provision of meals) act, 1914," and the "Elementary education (defective and epileptic children) act" were passed just upon the adjournment of Parliament. The former enlarges the powers of local authorities with respect to providing meals, at public expense, for necessitous school children, not only during the time the schools are in session, but in the holidays and vacations also. Under the circumstances it has practically the character of an emergency war-time measure. The second act referred to gives the local authorities increased power in respect to the education of defective children. For this purpose, in extreme cases, such children may be removed from the control of parents who will not consent to have them properly trained.

WELFARE SERVICES.

England affords an impressive example of the combination of central and local authorities in the promotion of welfare services for school children. Like the establishment of the schools themselves, provision for these services rests with the local authorities, but the Government gives financial aid and has had great effect in unifying and directing the services. The report of the chief medical officer shows that with a single exception all the local authorities have established some form of medical inspection of schools and school children in their areas. There are 1,097 medical officers engaged in this work, including 84 women and 300 specialists for the treatment of the eyes, ears, and teeth. Out of the total 318 authorities, 125 are employing school nurses, 48 provide for the X-ray treatment of ringworms, 115 have established their own school clinics, and 300 hospitals are used for the treatment of infantile complaints. In connection with the medical inspection, open-air schools have multiplied, accommodating 945 children; schools for mothers have arisen as a branch of the medical work, and of 200 such schools 33 received during the year grants from the General Government. The pro-

vision of meals for necessitous children has been promoted by the medical inspection, which has established the fact that underfeeding is one of the chief causes of physical infirmities in children and of their inability to keep up with their classes. In addition to these services, which are intended for children attending the ordinary schools, the local education authorities maintain 369 special schools for comparatively hopeless cases, such as epileptics, the mentally defective, cripples, deaf and dumb children, and blind children. These services are very costly, and taken in connection with the improvement in the teaching force and in school buildings required by the Government, entail large expenditures upon the local authorities. Hence, the significance of the additional grants for necessitous areas—that is, areas that have reached the limit of local school taxes—and the grants-in-aid of the various branches of welfare work.

THE TEACHING SERVICE.

In a speech before the House of Commons on the budget estimates for the current year, Mr. Pease dwelt upon the difficulty of recruiting the teaching service. At least 9,000 new teachers are required annually to fill vacancies, but the training colleges do not send out half this number; in 1912 only 4,007 students passed the final examination entitling them to the Government certificate. The number of young people who enter upon preparation for the training colleges fell from 11,018 in 1906–7 to 4,486 in 1913–14. Among the causes of this threatened dearth of teachers, the chief is the small inducement offered by the service as compared with other occupations that are now within reach of the same class of people. Although there has been a slight increase in the average salaries of teachers during a decade, they have not kept pace with the increased cost of living, and the prospects of promotion are even less than formerly. To these discouragements must be added the length of time required for preparation and the inability of parents to provide for their children during this time, especially when the chance of earning in other vocations is open to them. The deficiency of properly trained teachers affected chiefly the rural schools. Two measures are suggested by the president of the board of education for overcoming this evil: First, the increase of "maintenance allowances" by local authorities. This would relieve the family of the cost of a student's living during the period of preparation. The second measure is the revival, in modified form, of the pupil-teacher system. The latter action has been determined upon. Mr. Pease says:

> We have revived the pupil-teacher system in rural districts, but we have done it in a very different way from that which formerly existed. The old pupil-teacher system failed because it was frequently the hopeless case of a tired teacher instructing a tired pupil. This will now be avoided, because the pupil-teacher will not be

allowed to count on the staff, and he may not teach more than half time. We propose to give grants increased from £20 to £42 for pupils living outside the range of secondary schools; the pupils will be taught partly by head teachers and partly by subsidiary central classes.

What may be called the *grievance of teachers* was emphasized during the year in an address before the National Union of Teachers, to be presently considered.

TRAINING OF TEACHERS.

The interest in the subject of teacher training is emphasized by a review of the history of the training colleges (normal schools) of England, in the current report of the board of education. This review covers two eras, the first extending down to 1890, prior to which all the State-aided training colleges were under private management (chiefly denominational) and were residential schools directing the entire life of the students during the period of training.

In 1890 the Government agreed to recognize, for grants, day training colleges attached to the universities, and the education act of 1902 sanctioned the use of public funds by local authorities for the support of training schools; thus new types of institutions were brought into the field. The spirit and methods of the training were affected by the new institutions, and also by the demands of the times. These changes were reflected in the regulations (code) issued by the Government in 1904, which therefore marks an important stage in this history.

The older regulations outlined a program of secular subjects which was followed by all the colleges and prepared all students for the same official examinations. This uniformity was broken up, partly as a consequence of the relation established between the day training colleges and the universities, and partly by the call for new subjects of instruction. The course of study was thenceforth modified in many ways to meet the needs of individual institutions and students. At present many of the students do not take the official examinations at all, but prepare for university examinations which are accepted by the board of education as equivalent to their own. A second and very important change that has taken place relates to the staff of the institutions. The choice of principals and teachers formerly rested with the managers of a college. Since 1905 the board of education has required that all proposals for appointment to the teaching staff of the colleges, including the post of principal, shall be submitted to it for approval, together with full details as to the qualifications. A reasonable proportion of the staff of a college must be university graduates, and regulations have been made to secure the appointment of women as principals and lecturers in colleges for women or in mixed colleges

The employment of a higher type of teachers has brought a marked change in the conduct of studies. Under the early system instruction was conveyed almost entirely by lectures; for this system the colleges are substituting, more and more, the instruction of students in small classes. In this way the exercises are more closely adapted to the attainments and interests of the students, free discussion during class hour is encouraged, and the students have time for private study, which was hardly possible when their time and energies were exhausted by transcribing and memorizing notes of lectures.

The improvement in the conduct of studies in the training colleges is particularly shown in the matter of English language and literature. The grammatical "subtleties" that formed a prominent feature in the older examinations have been replaced by the study of select authors with the hope of exciting a general love of literature. Since 1904 the program has been extended by the addition of the semiprofessional subjects of physical training and hygiene. The official syllabus of physical exercises for public elementary schools has been introduced into the colleges. Expert inspectors have been employed to test the students' proficiency in the syllabus, and their ability to teach it with success; instruction in hygiene has also been made compulsory for the majority of the students.

The municipal training colleges naturally draw their students from a limited locality, and consequently their advantages are offset in a measure by the danger of "inbreeding." Some efforts have been made by local authorities to correct this tendency by selecting only a portion of their teachers from the output of their own colleges. A surer corrective is likely to be found in the provision for residence, which nearly all of the municipal colleges are taking measures to supply.

The relation between day training colleges and the universities gave students the chance to secure a university diploma, and this opportunity was eagerly seized by the more ambitious, and their efforts were encouraged by the education department. Two orders of training have resulted, one based on the needs of elementary schools, the other animated by university purposes. Experience shows that while the stronger students in the day colleges fare better than they would have done in the old residential colleges, the weaker students are worse off. There are difficulties in the way even of those best able to work for the degrees. The university teaching, having been intended to provide for university students, is unsuited to men of lower attainments; at the same time many students who really are not capable of taking the higher studies make the endeavor, instead of increasing their imperfect knowledge of the subjects which they must eventually teach. Moreover, the degree course of a university requires a student's undivided energies

for three years; but in the case of one preparing for a teacher's position, this work must be combined with professional training. Under these circumstances it is not possible for the intending teacher to compete with other university students unless he neglects subjects which are essential in his subsequent career as a teacher.

Thus a contest has arisen between the claims of academic and unacademic subjects. The board of education discusses the difficulty, but so far has offered no remedy. The suggestion, however, is made that a graduate from a training college should be allowed to pursue a two-year course of university study after graduation. This is practically the arrangement in Saxony for graduate teachers who are admitted to Leipzig University.

The development that has taken place in the professional training of teachers reacts upon the service. The more highly trained teachers naturally require and need increased salaries, and this places them beyond the reach of rural schools and even of the schools of small towns; indeed, in England, as elsewhere, the salary question is the critical one in popular education.

ANNUAL MEETING OF THE NATIONAL UNION OF TEACHERS.

The National Union of Teachers exerts great influence by reason of its large membership, which has reached 88,000, and its means of affecting public opinion. The union has four representatives in Parliament, and maintains an organ, The Schoolmaster, which is ably edited and strong in its advocacy of popular education. The annual meeting of the association was held this year at Lowestoft during Easter week, as usual. The president, Mr. W. B. Steer, assistant master of the municipal secondary school, Derby, in his inaugural address discussed the status of the teachers under two main considerations, namely, their remuneration and the unpopularity of the profession itself. He declared that "there are at least 14,650 fully qualified teachers serving to-day in the nation's schools who can not be said to be earning a living wage." This contention was supported by the facts relative to the average salary of certificated teachers, with respect to which Mr. Steer said:

> The average salary of £146 3s. ($730) which the nation pays its certified masters is absolutely and relatively inadequate—absolutely because it compels the teacher to live a narrower life both socially and mentally than is good for the influence which he is required to wield, and relatively because, with equal capacity, a man can secure a much better remuneration in other professions. And the same thing must be said of the average salary of £101 ($500) which the nation pays its certified mistresses. From a patriotic standpoint the claim of the National Union of Teachers is entirely wise, for the potential recruits will not enter the teaching profession until the nation can assure an eventual salary of at least £200 per year to every man and £160 to every woman who responds to the call, with higher remuneration still should their industry and success and the smiling face of fortune lead to promotion to the head teachership of a school.

Other causes for the unpopularity of the service were summed up as follows:

(1) The fact that the qualities which the country demands from its teachers it does not hold in real esteem; (2) the belittling of the teacher's certificate by the board of education itself, and by education authorities generally; (3) the lack of consistency in the character of the certificate from year to year; (4) the employment of unqualified teachers; (5) the absence of a register of qualified teachers; (6) the denial to teachers of a share of the control of education; (7) the control of education by men who have had little or no experience of the work, and frequently the poorest ideas of the aim of the school and the possible scope of the curriculum; (8) the consequent adoption of impracticable and even false standards by which teaching may be judged—standards not based upon generally accepted pedagogical principles, but upon the mere intuitions, whims, and caprices of the reigning sphinx in office; (9) the closing of the legitimate avenues of promotion to the teacher; (10) an inordinate worship of university training as the sole qualification for administrative and inspectorial posts; (11) the division of the profession of education into water-tight compartments.

The recent creation of a new grade of assistant inspectors, to which teachers are eligible, was pronounced a "grudging concession." The position is not available to teachers after they are 45 years of age. The salary attached to the position is not high, and the age limit cuts out the men and, to some extent, the women whose service is rendered in large towns, where promotion to head teachership does not come until the forty-fifth birthday has passed.

At the last meeting of the session a resolution was adopted, authorizing the executive to put forth all possible effort, both locally and nationally, to secure the adoption of a standard scale of salaries for certificated class teachers in primary schools. The scale demanded was as follows: For provincial class teachers, men, minimum, £90 ($450); maximum, £200 ($1,000), to be attained by automatic increments; women, minimum, £80 ($400); maximum, £160 ($800), to be reached also by automatic increments. For metropolitan and extra metropolitan class teachers, men, minimum, £100 ($500); maximum, £250 ($1,250); women, minimum, £90 ($450); maximum, £200 ($1,000).

The resolution excited discussion because of the difference between the range of salaries demanded for men and women teachers, but all proposed modifications were rejected in view of the difficulty of securing men teachers. The vote in favor of the resolution was finally declared unanimous.

NORTH OF ENGLAND EDUCATIONAL CONFERENCE.

The twelfth annual meeting of the north of England educational conference was held at Bradford January 1 to 3 of the current year, and was characterized, as usual, by discussions of the social bearings of education. The keynote of the meeting was struck at the opening session by Dr. Sadler, who took for his subject "The present dis-

contents in English education." The following citation from his address is particularly significant in view of the just complaints of the teaching body as voiced in the proceedings of their own association. Dr. Sadler said:

So far from English teachers as a mass being at the present time disheartened about their work, or disillusioned with their lot, there never has been a time within living memory when so many of them were enthusiastic about their work or so willing to give unsparingly of the leisure of their holidays to self-training and further study. Holiday courses in England are hardly more than 20 years old. Year by year the number, the attendance at them, their success, increase. Only those whose business it is to watch this significant movement know how far-reaching it is, how deeply it is affecting the educational situation. Thronged summer gatherings, attended by hundreds of teachers for two or three weeks together, are now so usual as hardly to receive notice in the press. Again, any new contribution to educational thought is hailed at once with interest and eager curiosity. When Jacques-Dalcroze came to England a year ago the largest halls could hardly hold the number of teachers who wished to hear him. If Madame Montessori came to England (as I hope she may), she would have to give her lecture twice over in every town she visited. Mr. Edmond Holmes, who is the Gordon Craig of English educational literature, has an audience of readers upon a scale which, in his lifetime, Matthew Arnold utterly failed to find. Again, if you go to any experienced inspector, he can take you to schools in his district where there is work of high promise and originality, due to the character or artistic power of some perhaps obscure teacher, and bearing fruit in a new kind of discipline among the children and in a new relation of confidence between the school and the home. Platform hacks talk about the chaos of English education. It is a cheerful chaos. It is growth, not decay, which is the cause of the conclusion. There are scores of private schools, even the names of which are not known to the wider public, which are full of a fine spirit of educational originality, combined with a reverent regard for the wisdom of precedent. Principal Griffiths [1] did not mention the education of girls. Yet, after all, girls are more than half the English race. We live in an age in which girls' schools have for the first time in England been created on a national scale. What body of educational opinion is there amongst us so well considered, so honest, and yet so hopeful as that of the head mistresses and assistant mistresses of our secondary schools for girls? Principal Griffiths's picture is like a painting by some of the Dutch masters, a little dark and gloomy; but even he has his high lights. He spoke with just enthusiasm of the promise and performance of the tutorial classes organized by the universities in union with the branches of the Workers' Educational Association, and with the help of local authorities and the Government. Perhaps by concentrating too much of his praise on this one feature of the educational outlook he did unwittingly a little injustice to other tendencies and other movements, in their way not less encouraging. This upthrust of interest in the things of the mind, which is a mark of the best working-class opinion in England at the present time, is one of a dozen signs of hope for the future, but it is also a sign and an outcome and a cause of unrest. We are in for stormy weather, but there is something exhilarating in a storm.

* * * * * * *

What Bacon said about the planting of colonies is true of the making of an educational system: "It is like the planting of woods. You must make your account to lose almost 20 years' profit and expect your recompense in the end."

[1] Reference to address before the education section of the British association in 1913, by Principal Griffiths, of the University College of South Wales.

STATISTICAL SUMMARY.

The following tables comprise the principal statistics relating to the system of public elementary schools in England and Wales for the last year reported:

TABLE 1.—*Showing classification of public elementary schools and enrollment, 1911–12.*

Classes of schools.	Enrollment.	
	England.	Wales.
Ordinary elementary schools	5,582,238	455,132
Higher elementary schools	7,706	2,029
Certified "efficient" schools	4,177	31
Certified schools for blind children	1,804	67
Certified schools for deaf children	3,578	103
Certified schools for mentally defective children:		
(a) Certified day schools	12,190	105
(b) Certified boarding schools	382	.....
Certified schools for physically defective children:		
(a) Certified day schools	5,016	.....
(b) Certified boarding schools	544	.....
Certified boarding schools for epileptic children	395	.....
Total	5,618,030	457,467
Total for preceding year	5,614,014	453,091

TABLE 2.—*Summarized statistics of ordinary public elementary and higher elementary schools, England and Wales, 1911–12.*

Number of schools	20,935
Enrollment:	
Boys	3,049,507
Girls	2,997,598
Total	[1] 6,047,105
Teachers:	
Men	41,633
Women	122,646
Total	164,279
Expenditure	£24,116,388
United States equivalent	$117,205,646

TABLE 3.—*Expenditure for elementary education, England and Wales, year ending Mar. 31, 1912.*

Purposes.	England.	Wales.	Total.
Ordinary elementary schools	£17,994,028	£1,361,296	£19,355,324
Higher elementary schools	92,287	18,129	110,416
Industrial and special schools	538,938	15,542	554,480
Total	18,625,253	1,394,967	20,020,220
Special aid	90,150	.....	90,150
Medical service	183,726	13,402	197,128
Provision of meals	136,167	7,318	143,485
Administration	1,199,791	83,415	1,283,206
Loan charges	2,683,340	249,125	2,932,465
Other payments	32,600	5,574	38,174
Grand total	[2] 22,951,032	1,753,805	24,704,828
United States equivalent	$115,542,016	$8,523,493	$120,065,509

[1] Number registered the last day of the school year.
[2] Includes fractions of pounds not given in items.

TABLE 4.—*Statistics of adult teachers in ordinary public elementary schools, England, 1912.*

Total number	150,438
Certificated	99,344
Per cent of total	66.04
Uncertificated	37,582
Per cent	24.98
Probationary	1,596
Per cent	1.06
Supplementary	11,916
Per cent	7.92
Average salaries of teachers:	
Certificated principals—	
Men	£178.0
Women	£125.2
Certificated assistants—	
Men	£129.2
Women	£94.6
Uncertificated teachers—	
Men	£67.7
Women	£56.3

TABLE 5.—*Statistics of training colleges for teachers, England and Wales, 1912–13.*

Number of colleges	87
Students:	
Men	4,328
Women	7,798
Total	11,126
Number of students who have completed their training:	
Men	1,527
Women	3,580
Total	5,107
Number of teachers:	
Men	235
Women	148
Total	383
Expenditure	[1] £505,732
United States equivalent	$2,457,855

Of the entire expenditure for training colleges, £309,632 was met by Government grants and £26,824 by local appropriations, or a total from public funds of £336,456 ($1,345,824), covering 66½ per cent of the total.

SECONDARY EDUCATION.

The education act of 1902 extends the obligation of local education authorities beyond the provision of elementary education by the following clause:

The local education authority shall consider the educational needs of their area and take such steps as seem to them desirable, after consultation with the board of education, to supply or aid the supply of education other than elementary, and to promote the general coordination of all forms of education, and for that purpose shall apply all or so much as they deem necessary of the residue under section 1 of the local taxation (customs and excise) act, 1890, and shall carry forward for the like purpose any balance thereof which may remain unexpended, and may spend such further sums as they think fit: *Provided*, That the amount raised by the council of a county for the purpose in any year out of rates under this act shall not exceed the amount which would be produced by a rate of 2 pence in the pound, or such higher rate as the county council, with the consent of the local government board, may fix.

[1] Includes household expenses.

In accordance with this requirement, nearly all educational authorities in the Kingdom have taken measures to aid private secondary schools and bring them under public supervision, and at the same time they have established new schools of secondary character, supported entirely by public funds. The board of education also allows grants for schools of this class, and thus they are brought within the general system of State-aided education.

The board defines a secondary school as one which—

> offers to each of its pupils a progressive course of instruction (with the requisite organization, curriculum, teaching staff, and equipment) in the subjects necessary to a good general education, upon lines suitable for pupils of an age range at least as wide as from 12 to 17.

The school must submit to Government inspection and must retain a fair proportion of its pupils for a four-year course of secondary instruction, extending "up to and beyond the age of 16"; if provision is made in the schools for pupils below the age of 12, this elementary work must be kept in proper relation to the main purpose of the school; in case there are less than 20 pupils over 12 years of age, the school is not recognized by the board as of secondary grade.

It is somewhat difficult to adapt private schools, which have long followed traditional courses of study, to modern demands. The official requirements for the grant-aided schools are explicit in respect to facilities for science teaching, and they offer special inducements for vocational training. The measure of success in the latter direction is shown by the fact that 74 of the schools report facilities for this order of instruction. Of these, 34 maintain courses of a rural or agricultural character, 25 maintain commercial courses, 14 special courses in domestic science for girls, and 8 engineering courses for boys. Instruction in needlework is obligatory in all girls' schools, and instruction in cookery is very general; the vocational course is defined as one "combining with these other subjects of housecraft in a course which has for its distinct object the preparation for general household work, whether in the home or under an employer."

According to the latest official report the number of secondary schools in England receiving grants was 898, including 402 controlled by local authorities, 424 endowed schools, 26 schools belonging to the Girls' Public Day School Trust, and 46 controlled by Roman Catholic orders or communities. These schools enrolled 158,832 pupils (85,110 boys, 73,722 girls), and employed 9,126 full-time teachers and about 3,000 part-time instructors. The latter are generally required for special instruction, such as physical exercise or handicraft.

As a condition of receiving the Government grant, a secondary school must provide a certain proportion of free places open to the

class of children that attend the public elementary schools. Originally this requirement was 25 per cent of the accommodation in the school, but the proportion may be reduced under certain conditions. For the year under review, approximately one-fourth of the pupils (nearly 40,000) in the schools considered were holders of free places intended for pupils transferred from the public elementary schools. The local authorities maintain scholarships covering the tuition fees for such pupils and, in some cases, a living allowance, which is paid to the parents. In this way secondary schools, formerly limited to the more-favored social classes, have been brought within the reach of poor children of exceptional capacity. This arrangement has proved beneficial to individuals, although it does not satisfy the democratic demand for an open road for all children to the higher institutions.

In addition to the secondary schools receiving grants from the board of education, there are private schools of this grade recognized as efficient, which invite inspection but do not wish to conform to the requirements for grants. Altogether there are about 1,000 secondary schools in England, with an enrollment of 179,000 pupils, in relation with the board of education. The statistics for Wales, in which the arrangements are slightly different from those in England, would increase the number of schools to 1,115 and the number of pupils to 185,000.

It should be noted, however, that the majority of private schools (the number is estimated at 14,000) do not come within this system at all. In a measure the work of these schools is systematized by the university examinations for individual pupils and for schools.

The great endowed schools occupy a place in the English system quite distinct from that of other private schools. The former have always maintained close relations with Oxford and Cambridge and form, as it were, the preparatory stage in a complete scheme of liberal and professional education.

BOY SCOUT MOVEMENT.

The record of the year would be incomplete without reference to the educational features of the Boy Scout movement in England. This aspect of the subject was dwelt upon in a recent article, from which the following particulars are cited:

> The scout movement picks up a boy's teaching just at that moment in his life when knowledge counts for something more than the bookishness to which he has been subjected. First of all, there is character training, to bring out perseverence, hardihood, pluck, and skill; when the boy is taught how to get and keep himself fit, how to assist his fellows in times of emergency and otherwise, how successfully to pursue some art or craft, how to be ready to turn his hand to anything from cooking a hunter's stew to felling a tree. In this connection Sir Robert Baden Powell has stated that "I am very anxious to extend the development of handicrafts among the scouts in all points of the country."

In accordance with this purpose of the founder of the organization, increasing attention is given to the making of craftsmen, and the list of subjects for which badges of efficiency are awarded is declared to be "formidable." The list already numbers no less than 52 handicrafts which call for careful attention and a satisfactory examination before the young scout can secure a "proficiency badge." It is not surprising, says the author of the article referred to—

> that employers have also begun to realize the value of the scout training and to look out for boys who have gone through it. The trustworthiness, the alertness of mind, the handiness and resource of the scout are qualities worth coveting and worth paying for.[1]

TRADE AND TECHNICAL EDUCATION.

In England, as in the United States, the subject of vocational training engages serious attention at the present time. It is recognized in England that the agencies for this work must be adapted to the industrial, social, and political conditions of the country. At the same time every disposition is shown to profit by the experience of other countries which have had longer experience in this field.

During the year an investigation of trade and technical education was conducted in France and Germany by Mr. J. C. Smail, representing the London County Council. This gentleman, who is the organizer of the trade schools for boys in the London system, was accompanied by an officer of experience from the department of agricultural and technical instruction, Ireland. The report of this investigation deals largely with details relative to the work in the cities visited. Its value to Americans lies chiefly in the comparative estimate of systems on the part of its authors.

The different ideals that direct the work in France, Germany, and Great Britain are contrasted in the report as follows:

> Germany aims at the building up of a great industrial nation partly by the thorough training of the leaders as experts, partly by the training of the middle-grade workers, such as draftsmen and foremen, as thoroughly accurate and careful managers, and partly by the training of all grades of workmen and mechanics as skilled craftsmen and good citizens.
>
> France aims at industrial excellence partly by the training of highly skilled experts and partly by the training of those who should become the best workmen and the best foremen.
>
> Britain aims at individual excellence partly by offering many avenues of training and many chances for willing and persevering workers to climb all sections of the industrial ladder.
>
> Each of these aims contains much good; no one of them is complete. Britain, by reason of its exceptional advantages, makes the most strenuous call upon its individuals for the advancement possible for them.
>
> It is necessary to bear these ideals in mind in considering any organization for technical education, for while these ideals have probably not been expressed, their

[1] Price, W. Cecil. The Development of the Boy Scout Movement. In The Fortnightly Review, July, 1914, pp. 123–133.

influence has undoubtedly been behind the progress made. The German ideal may be termed the long view which must eventually lead the German nation to and maintain it in a foremost place as an industrial world power. The British method may be regarded as more philanthropic than patriotic; the ideal is admirable, but the bulk of the nation's workers are not catered for by this ideal, and on the bulk of the workers much of the material prosperity of a nation must depend.

The three countries named are alike in distinguishing between three main groups for whom vocational education must be provided. These groups are characterized as follows:

(I) Lower or junior technical education for those with an elementary education only, engaged in or about to be engaged in trades, of ages from 14 to 18—to train capable workmen.

(II) Middle technical education for those with a more advanced general education, or for those who have already had some trade or workshop experience, of ages from 16 upwards—to train draftsmen, designers, foremen, managers, etc.

(III) Higher technical education for those with a thorough secondary education, or its equivalent, of ages from 18 upward—to train technical experts.

It is explained that little attention was paid to the third group, because this has been repeatedly made prominent. With regard to the first and second groups the following general observation is made:

The great development of voluntary evening technical instruction in Britain, which may be classed largely as middle, but partly as lower technical education, finds no adequate parallel in the systems of France and Germany. A considerable amount of work of this kind is going on, but the French and German educational experts do not appear to realize its possibilities, or perhaps too strongly realize its limitations. They accordingly look to day work as the only adequate method for imparting instruction of any real value and do not regard evening training as a practicable scheme by which individuals can gain such additional knowledge and training as will lead to their advancement from a lower to a higher grade on the industrial ladder. There is, however, evidence of a growing demand for this type of instruction in Paris and in Munich.

Under the head of general conclusions the report emphasizes the importance of compulsory continuation schools for all youths from 14 to 17 or 18 years of age, and the opinion is expressed that, so far as possible, day training schools must form a feature of the provision for trade training.

It should not be inferred that England is indifferent to the increasing demand for trade and technical training, but following the usual custom of the country, local action precedes any endeavor to systematize the work through the agency of the General Government. The present activities in this direction in that country can only be illustrated by reference to particular communities.

The city of London affords large and varied opportunities by which workmen can improve their skill and technical knowledge; although this is chiefly provided by evening classes, many day schools have been organized for the same purpose, and their number is increasing. According to the latest reports the council maintains 17 technical institutions, schools of art, and day trade schools, and extends aid to

36 additional institutions, including 9 polytechnics, 4 domestic economy schools, and 2 higher institutions, namely, the Imperial College of Science and Technology and the technical classes of University College. The evening classes in these various institutions registered in 1912 about 35,000 students, whereas, there were less than 4,000 in day classes. In addition to the appropriations made directly to these institutions, the council extends help to the students themselves in the form of scholarships. The trade scholarships for boys generally consist of free education and a maintenance allowance of £6 ($30) and £15 ($75) for the second and third years. The scholarships awarded for girls are for such trades as dressmaking, laundry work, upholstery, etc. As a rule these scholarships are for a period of two years, and, in addition to free education, allow £8 as a maintenance grant for the first year and £12 for the second. Attention is called to the importance of the consultative committees, which are the medium of relations between the trade schools and the trades themselves. On these committees the masters' associations, the workmen's associations, and the council are all represented.

The measures by which provision for the day training of young employees is taking place in England are illustrated by particulars pertaining to day classes for brass workers recently established in the city of Birmingham.

Both the workmen and the employers in the brass trades—the most important of the industries of this city—have shown a progressive spirit in all their relations. This is illustrated by the agreement between the employers and the brass workers' society for a scale of wages based upon the capacity of the workman, a graded scheme having been established which was first reported on October 17, 1910.

The agreement between employers and employed, as subsequently adopted, provides that:

1. The classes shall be held during the daytime from the hours of 8 to 12.30, and 2.30 to 6, and be confined to boys in the brass and allied trades.
2. Each pupil shall attend two half days per week.
3. The school shall be opened each day of the week (Monday to Friday) in order that only a few boys may be absent at a time (say, one-fifth).
4. It shall be available for all boys from 14 to 16 years of age. In the beginning a full two years' course for boys starting under the age of 16 years may be given by arrangement.
5. The wages of boys shall be paid by the employers and the brass workers' society in certain proportions. The secretary of the brass workers' society has stated that he would be responsible for a maximum contribution of £25 ($122) per annum.
6. The school authorities shall find teachers (whole-time teachers as far as possible), buildings, tools, and equipment, and also have the approving of the curriculum, the trade to find trade materials, models, and to assist in maintaining attendance and interest in the school.
7. The majority of the management committee shall consist of representatives proposed by the manufacturers and workmen in the brass and allied trades, subject to confirmation by the education authority.
8. The evening class at the technical school shall be continued, with a view to its becoming an advanced class for adults.

Firms interested in the brass trades have agreed to guarantee a total number of 105 boys to attend these classes.

The most important feature of the scheme is the contribution by employers and by the brass workers' society toward the wages of the boys during the period of their instruction in the daytime.[1]

TABLE 6.—*Statistics of higher schools (secondary and technical), England and Wales, in receipt of grant from the board of education.*

Institutions aided by Government grant.	Schools.	Number of teachers.			Students.	Total grant.	United States equivalent.
		Men.	Women.	Total.			
Secondary schools	995	6,895	6,513	13,408	165,617	£682,070	$3,314,885
Technical, art, and evening schools	8,972	29,702	12,809	42,511	843,738	587,200	2,853,792
Training colleges:							
For teachers of elementary schools	86	504	626	1,130	12,176	470,896	2,288,554
For teachers of secondary schools	13	.....	.....	.....	172	2,305	11,202
For teachers of domestic subjects	14	.....	.....	.....	1,033	4,386	21,316

SCOTLAND.

SCOPE OF THE SYSTEM OF PUBLIC EDUCATION.

Universal provision for elementary education has so long existed in Scotland, and its importance is so generally recognized, that progress is marked only by extensions and adaptations of the system. Education acts in Scotland have comprehensive scope in decided contrast with the piecemeal legislation of England. The latter proceeds by filling up gaps when they threaten disaster; the former builds on the solid foundation of the act of 1872, which preserved the old parish and burgh system. The parish school fitted its foremost pupils for the university, and the burgh school added to this function that of preparing young men for business careers. The education act of 1872 maintained the best features of both by a compulsory clause, uniform for the entire country, and by distinct recognition of the existing secondary schools. Subsequent experience has shown the need of areas of school administration larger than the parish, while the complex demands of modern life call for new agencies of secondary education. The education act of 1908 extended the scope of school board activities, but left the parish areas as they were. At the same time, it provided for the increase and wider adaptations of the agencies of secondary education. The additional duties placed upon school boards by the act of 1908 emphasize the need of areas of local administration wider than the parishes, and as this is a matter affecting also the tenure and pecuniary support of teachers, it continues to be the end toward which efforts at new school legislation are mainly directed. These efforts, however, have had no

[1] Statement furnished by Mr. Albert Halstead, American consul, Birmingham, July, 1914.

definite outcome during the present year. The only measure before Parliament affecting education in Scotland was the finance bill, emanating from the chancellor of the exchequer, which carried additional grants for education in both England and Scotland. The extra grant available in Scotland for the four months ending December 31, 1914, amounts to £71,000 ($355,000).

Statistics of primary and higher grade schools, 1912–13.

Number of schools	3,370
Enrollment	845,879
Average attendance	753,906
Teachers:	
Men	5,392
Women	15,203
Total	20,595
Expenditure	[1] £3,724,828
United States equivalent	$18,102,664

WELFARE ACTIVITIES.

The welfare activities of the local school authorities include provision for medical school inspection, for feeding necessitous school children, and for the vocational guidance of the young. In respect to these activities Scotland is affording lessons of great value to other countries. The second report on medical inspection issued by the department shows that the service is now organized throughout Scotland and is generally coordinated with the public health service.

In view of exigencies arising from the European war, the department has issued a special circular to school boards, calling their attention to the extensive relief powers conferred upon them by the recent measure and urging that the boards, "while taking all due precautions against waste and needless expenditure, will make a liberal use of their powers under the act to meet all cases of genuine distress."

The letter further advises that school boards should work in this matter in close relations with all committees and public bodies dealing with problems of unemployment and distress in their respective areas.

EDINBURGH SCHEME FOR DEALING WITH CHILD NEGLECT AND CHILD RELIEF.

The duties which a school board may undertake in dealing with cases of child neglect and necessity may be seen from the scheme formulated by the school board of Edinburgh. The population of

[1] Total net ordinary expenditure (excluding capital outlay) for 1911–12.

the city is 320,318, exceeded only by that of Glasgow, namely, 775,594. With the exception of the latter, Edinburgh has to deal with more poverty than any other city in this division of Great Britain, and therefore requires a more complex scheme of relief operations than many. The plan adopted is applicable in all cities having similar conditions, and in respect to scope and method is suggestive for even smaller communities. Its main features are as follows:

The scheme is divided into two main sections: (*a*) Child neglect, (*b*) child relief. As regards the former, there are seven types under which neglect is classified, viz, insufficient food, insufficient boots, insufficient clothing, neglect of medical treatment, vermin of head, vermin of body, and condition of dirt. For each of these types there is a procedure which has the following steps: White card of first warning, red card of second warning, certificate of neglect to the board, statutory notice to the parents and summons to the board, transmission of case to the procurator fiscal for prosecution. The white and red cards are issued by the head master to the parent; the certificate of neglect is signed by the head master and medical officer; and the neglectful parent, when summoned before the board, is given an opportunity of explaining the circumstances of the neglect.

During the year 1912–13 the number of statutory notices served upon parents (under section 6 of the act) for the various forms of child neglect was as follows:

Statutory notices served on parents.

Forms of neglect.	Number of parents.	Number of children.
Insufficient boots	34	38
Insufficient clothing	4	4
Insufficient food	2	3
Dirt and vermin	27	60
Neglect of medical treatment	5	7
Total	92	112

Twenty-one parents were summoned before the board. In one case the parent was convicted at the sheriff court, and a penalty of 20s. or ten days' imprisonment was imposed.

In respect to the success of the system the Edinburgh school board received a series of reports from head masters, which are summarized as follows:

(1) That the card system has had most beneficial effects in improving the condition of neglected children and in enforcing parental responsibility for neglect.

(2) That the system of inquiry by which the cases of culpable neglect are separated from those of real destitution has been thorough and effective.

(3) That the arrangements made for the supply of meals from the cooking center have been very satisfactory, both as regards quality of food and method of distribution.

(4) That a real improvement in the condition of the children fed has been noted and a correspondingly increased aptitude for school work.

(5) That the educational effect of eating meals under supervision and in satisfactory surroundings has been marked.

(6) That the machinery of inquiry into cases of neglect and of enrollment on the feeding list is somewhat slow.

Commenting upon the opinions, the board in its official report says:

The question of accelerating the system of inquiry is under careful consideration; but it must be borne in mind that a more rapid method of investigation might be less thorough and might fail in uniformity of treatment.

Reference in some of the reports is made to the fact that parents decline to fill up the schedule of application, though the children obviously require food, and the inference is that nothing more can be done. This is an entirely wrong conclusion. Cases such as these are exactly the cases for the penal side of the board's procedure, and head masters should have no hesitation in so dealing with them. The act is explicit on the point, and it does not even lie in the option of the board to ignore cases of the type in question. It is hoped that all concerned will realize this aspect of the duty of the education authority and take steps accordingly.

LINK BETWEEN ELEMENTARY AND HIGHER EDUCATION.

The relations long existing between the parish schools and the universities of Scotland prevented the general establishment of schools intermediate between the two and threw upon the universities a great deal of preparatory work which could not be satisfactorily accomplished in the parish schools. While England was rich in endowments for secondary education, endowments in Scotland prior to 1872 went chiefly to elementary education or to the universities. Under the impulse of the education act of 1872 elementary schools became more and more differentiated from the higher education, while at the same time the universities were forced to abandon preparatory work. The Scotch authorities have been obliged, therefore, to create agencies for intermediate education and link them to the elementary schools on the one side and to the universities on the other.

FUNDS FOR ELEMENTARY EDUCATION.

The Edinburgh Merchant Company were pioneers in the field of secondary education. An attempt was made to turn other agencies in the same direction by the endowed institutions act of 1878. This act, however, which was permissive merely, had little effect upon the managers of trust funds, and hence it was followed in 1882 by the educational endowment act under which commissioners were appointed to inquire into the management of all educational endowments in Scotland, excepting those given after 1872, or those belonging to the universities or to theological institutions. The commissioners were also authorized to draw up schemes for the future administration of the endowments falling within their inquiry and to pass upon schemes submitted by governing bodies. The gross income of the endowments dealt with by provisional orders and schemes under the act of 1882 is about £184,000 ($920,000) yearly.

In most cases the endowments pertain to very limited areas. Three endowments applicable over wider areas—namely, the Dick, Milne, and Ferguson bequests—together with two others, limited in their geographical range—namely, the Highlands and Islands Educational Trust and the Heriot Trust, Edinburgh—have been applied directly to purposes of secondary education.

The education and local taxation act of 1892 added £60,000 ($300,000) to the funds available in Scotland for promoting secondary education. Meanwhile the education department instituted a leaving-certificate examination (1888) which, in combination with the inspection service instituted by the department (1885), fixed a standard for secondary education. The certificate was accepted by the universities in place of their entrance examinations, and thus it formed a link between them and the secondary schools. The intermediate certificate offered subsequently has in like manner served to define the character of a briefer course of instruction for pupils entering early into business life or intending to follow specialized technical courses.

THE CARNEGIE TRUST.

The twelfth annual report of the Carnegie Trust for the universities of Scotland presents a review of the operations of the fund, which is conducted on a larger scale than any other scheme for the endowment of higher education and research in that country. The following statements are from a review of the report in a contemporary journal:

The annual income of the trust amounts to rather more than £100,000, and after defraying the expenses of administration there is left about £99,000 as the net revenue available for distribution under the two main heads of the scheme. Half of this sum is earmarked annually for the payment of students' fees, while the other moiety is devoted (*a*) to the better equipment of the Scottish universities and colleges by the foundation of additional chairs and lectureships and by the provision of new laboratories and permanent equipment, and (*b*) to the endowment of research. Of course the equipment section of the expenditure also plays its part in the advancement of research work, as it furnishes places in which investigations can be carried on and also helps to provide posts for men who become directors of research in their various departments. It will be seen that the operations of the trustees are financially on a grand scale; for the funds at their disposal annually represent a sum equivalent to about 60 per cent of the total Government grant in support of the higher educational institutions in England and Wales.

In the allocation of the funds the trustees have been guided by two main considerations: First, they decided that their assistance to the four universities and their kindred colleges should be given under a quinquennial scheme, so that each step forward has been based upon the allocation of approximately half a million sterling. Secondly, a general rule was laid down that the trust would not hamper its income by paying salaries for new posts year by year out of the annual revenue, but instead any new chair or lectureship is endowed fully at the start, so that its subsequent

career entails no further draft upon the funds of the trustees. In this way each chair on its foundation disappears from the books of the trust, and the next quinquennial distribution can be devoted to entirely fresh needs.

Through the agency of this fund, striking progress has been made in the provision of new laboratories and apartments as well as in the increase of the professor staffs. Not less striking is the arrangement made for the endowment of research and postgraduate study. In regard to this feature of the administration the article continues:

A system of scholarships and fellowships has been founded which is supplemented by a series of grants in aid of research to Scottish graduates resident in Scotland; and this part of the trust's work has been of equal, if not greater, importance to the Scottish university system. Thus from the time a student enters the university to the day he leaves Scotland he finds a helping hand extended to him should he wish to grasp it.

During his undergraduate career he may obtain payment of his university fees; later, he may aspire to carry out researches, in which case he may apply for a scholarship or a fellowship. The research scholarships are conferred upon students on the recommendation of experts—usually the persons under whom the beginner in research will have to take his first steps in original work. Research fellowships are meant for men who have already accomplished something, and they are allocated on the merits of the work which the candidate has already published. In neither case is there any competitive examination, nor do the trustees bind themselves to furnish a fixed number of scholarships or fellowships in a given year. This is one of the most desirable features of their policy; for, as any teacher knows, an institution may turn out, say 20 first-class men in a given year, while in the following year only 1 or 2 may appear, so that the granting of a fixed number of scholarships per annum simply means that in some years a first-class man may not secure an appointment to a scholarship which in the following year will fall to the lot of a much inferior man, owing to there being a dearth in candidates. It should be pointed out that the trustees retain all these appointments in their own hands, so that graduates of all the four universities are dealt with on equal terms. The scholarships are of the value of £100 per annum, and are tenable for one year with a possibility of extension or of the holder's promotion to a fellowship; the fellowships are of the value of £150 per annum, and are normally tenable for two years, though further renewals are possible.

The impetus given to research under this plan is illustrated by the outcome in a single science, that of chemistry. It is stated that:

In the eight years, 1903–1911, the trust appointed in this department 45 scholars, 25 fellows, and 31 graduates. The work of these has resulted in the publication of more than 130 original communications to scientific journals. Now, in 1912, the contributions of the whole British chemical world to the Transactions of the Chemical Society amounted to only double this number, 266; so that it is evident that the Carnegie Trust, by its encouragement of research, has indirectly in the course of eight years produced a series of results equal to half the annual output of the whole Empire at the present time. This, it must be remembered, represents only a single department of the trust's activities.

In conclusion the writer emphasizes the wisdom of the Carnegie trustees in laying down general rules which allow great flexibility and thought to the narrowing phases of rigid requirements.

IRELAND.

THE SYSTEM OF NATIONAL SCHOOLS.

The development of the system of education in Ireland, in common with that of other public affairs, has been hindered by the contest over the home rule bill and the expectation of a radical change in local administration according to the issue of that contest. Meanwhile, however, the report of the commissioners of national education, who control the disbursement of public funds for elementary education, shows progress in many respects, although the absolute attendance upon the schools has somewhat diminished. The following statistics show fluctuations in attendance, which arise partly from improvements in the statistical method:

School attendance in Ireland.

Years.	Schools in operation.	Average number of pupils on rolls.	Average daily attendance.	Ratio of average daily attendance to average number on rolls.
				Per cent.
1910	8,337	699,945	495,962	70.3
1911	8,289	707,280	512,862	72.5
1912	8,255	699,353	499,038	71.3

The national schools are chiefly denominational, but Protestants may attend Catholic schools, and vice versa, in case parents make no objection. The distribution of the pupils by religious denominations in 1912 was as follows:

Pupils in 1912, by religious denominations.

Denominations.	Pupils.	Per cent.
Roman Catholic	500,319	74.79
Late Established Church	79,283	11.85
Presbyterian	74,465	11.13
Methodist	8,490	1.27
Other denominations	6,417	.96

The early withdrawal of children from school is a special difficulty with which the managers have to contend. According to statistics showing the distribution of pupils by age, over two-thirds (68.4 per cent) were between the ages of 3 and 11. The number under 6 years of age was 15 per cent of the total. It is noticeable further that 70 per cent of the enrolled pupils were in the first three standards or grades.

The teaching force employed in the schools in 1912 was composed as follows: Principal teachers, 7,816; assistants, 5,398; workmistresses and junior assistant teachers, 2,490.

For the professional preparation of teachers there were seven training colleges with 1,160 students in 1912–13. The increase of evening schools is noticeable; in 1912–13 there were 323 in operation. The sums expended from Parliamentary grants and rates (local taxes) for the support of the schools were as follows for the years specified:

School expenditures.

Years.	Expenditures.	United States equivalent.
1908–9	£1,624,424	$7,894,700.64
1909–10	1,688,547	8,206,338.42
1910–11	1,714,103	8,330,540.58
1911–12	1,699,934	8,261,679.24
1912–13	1,765,837	8,581,967.82

SECONDARY EDUCATION.

Secondary education in Ireland has been promoted through the agency of the intermediate education board, which disburses grants to schools on the basis of the number of pupils who successfully pass the examinations of the board. In 1912, students numbering 12,581 (8,276 boys and 4,305 girls) presented themselves for examination, as compared with 12,105 in the previous year, and 8,117 in 1901. The number passed in 1912 was 7,015 (4,767 boys and 2,248 girls). In the last year named the grant in respect of examinations paid to managers of schools amounted to £50,198 ($243,962.28), besides prizes and bonuses to schools.

TECHNICAL EDUCATION.

Technical education in Ireland is controlled by the Department of Agriculture and Technical Instruction, with the advice of a technical instruction board and a consultative committee.

The department endeavors to coordinate its work with that of other educational authorities; in 1911–12 grants from the Parliamentary appropriation were paid by the department as follows:

Grants by the Department of Agriculture and Technical Instruction, in 1911–12.

Classes of schools	Number.	Students.	Amount.
Technical	116	10,923	£23,918
Secondary	280	[1] 27,348	27,955
Primary	97	[2] 17,253	1,862

[1] In experimental science, drawing, manual instruction, and domestic economy.
[2] In drawing and manual instruction.

Central institutions under the department are the Royal College of Science, Dublin, with 141 students (1911–12); the Metropolitan School of Art, with 371 pupils (1911–12); the Irish Training School of Domestic Economy, 29 students; the Killarney School of Housewifery, 45 students.

According to the latest report of the operations of this department—

Technical instruction throughout Ireland is organized under the councils of county boroughs, urban districts, and counties. In urban and county schools and classes (1911–12) there were 45,502 young men and women studying nonagricultural subjects. In local examinations 365 candidates entered for science subjects, and 203 passed; 2,634 entered in art, and 1,257 passed (1912). There is an annual grant (out of the department's annual endowment fund) of £55,000 for technical education, of which £26,000 is allotted for technical instruction in county boroughs and £29,000 for similar and related purposes elsewhere. A grant of £7,000, called the "equivalent grant," was made from the Ireland development grant for technical instruction, and a grant of £10,500 for manual instruction and domestic economy in rural districts, and £3,000 for classes in lace and crochet-making and other rural industries, was made by the agricultural board in 1911–12.

CHAPTER XXXII.

EDUCATION IN THE SMALLER KINGDOMS OF NORTHERN EUROPE.

CONTENTS.

Scandinavian countries.—Common characteristics—Statistics. Sweden: Report of the royal committee on elementary education. Norway: Investigation of public schools; the system of agricultural education; the State agricultural academy; local agricultural schools; movable agricultural courses; preparation of teachers. Denmark: Introduction; higher institutions; national tendencies.

Belgium and the Netherlands.—Introduction. Belgium: System of primary education, organization and statistics, 1912; the Federation of Belgian Teachers; secondary schools; universities. The Netherlands: System of primary education; statistical summary; the universities; activities of the teachers' association; intellectual bonds between Belgium and Holland.

THE SCANDINAVIAN COUNTRIES.

COMMON CHARACTERISTICS.

The Scandinavian countries—Sweden, Norway, and Denmark—show in their school administration the signs of a common origin. In all three countries the Central Government exercises supreme control over this interest through a department or ministry of public instruction and ecclesiastical affairs, civil and religious authorities participating alike in this function.

The established or State church in the three Kingdoms is the Lutheran. Full liberty of conscience is allowed, however, and the State has no monopoly of education. Private schools, both denominational and secular, flourish, especially in the large cities. In the three Kingdoms public elementary education is gratuitous and attendance either at public or equivalent schools compulsory for all children 7 to 14 years of age.

The compulsory provisions are so thoroughly carried out and accord so entirely with the disposition of the people that illiteracy is practically obliterated from the Scandinavian countries. According to the latest statistics, the enrollment in elementary schools, either public or under public supervision, equals about 15 per cent of the population in each of the three Kingdoms considered. Denmark has an excellent system of continuation schools, and similar, though less extended, systems have developed in Sweden and Norway. The secondary schools are under public supervision and largely maintained by the State or towns, so that while not entirely gratuitous, tuition fees are small. People's high schools, which

originated in Denmark, are maintained also in Sweden and in a modified form in Norway.

The registration of students in Scandinavian universities in 1912–13 was as follows: Sweden—State universities: Upsala, 2,419 students; Lund, 1,137; Stockholm (State medical faculty), 352. Private University of Stockholm, 6,157; Goteborg (philosophical faculty), 235. Norway: University of Christiania, 1,500 students. Denmark: University of Copenhagen and the Polytechnic Institute, about 4,000.

SWEDEN.

[Report of the Royal Committee on Elementary Education.]

In 1906 a royal committee was appointed by the Swedish Government to investigate the status of training colleges for elementary-school teachers and to make recommendations for their improvement. The public discussions of the work of this committee, as it proceeded, indicated very clearly the importance of extending the scope of the investigation to elementary schools themselves. Accordingly, the number of members was increased by the addition of several persons of large experience in the conduct of such schools and the practical conditions which they must meet. In 1911 the committee published a voluminous report, treating of training colleges for teachers, and a little later two other reports, dealing with the matter of supervisory boards and school inspectors. On the basis of these reports three Government bills were laid before the Riksdag in 1913.[1]

The final report of the committee on elementary schools, issued during the current year, deals specially with the question of reforms required in the folkskola (primary school) and its extension by means of the continuation school. The main points of the report are as follows:[2]

FOLKSKOLA.

The attention of the committee was directed chiefly to the unsatisfactory condition of the elementary schools (folkskolor) in the rural districts, in which about 40 per cent of the children of the country receive their entire education. The defects of these schools are due chiefly to the brief school term and the number of very small schools in poor districts having few inhabitants. The only remedy for these evils, in the opinion of the committee, would be special State appropriations for increasing the salaries of teachers and putting the schools generally upon a better basis. Mere changes in the school regulations and the organization of schools will not reach the evils.

[1] For the action of the Riksdag on these bills, see Rep. of Commis. of Ed., 1913, Vol. I, p. 769.

[2] From notes of the report furnished by Joseph Alexis, assistant professor of the Germanic languages, University of Nebraska.

In regard to the general organization of the elementary schools, the committee recommends that a normal plan of study be adopted arranged for a course of seven years; that education should be compulsory for every child up to the close of the thirteenth year of age; that distinction be made in the school regulations between the obligatory subjects of instruction common to all schools and additional subjects that may be sanctioned.

The plan of instruction submitted by the committee is more extensive and more varied than that in use, but is intended to require less memorizing and dependence upon textbooks. The plan provides for the correlation of subjects such as geography and natural science in a manner more interesting to the young mind than the original grouping has been. For the first three years, these subjects are comprised under the heading "hembygdskunskap" (knowledge of one's own surroundings), set lessons in these subjects to be deferred to the fourth year of the course. The relation between geography and natural science is continued in the upper classes, and the teacher is advised to let the two subjects come alternately, so as to be mutually helpful.

In the general plan of instruction larger place is given to hygiene, in order that the school may, at an earlier stage than heretofore, assist the child in forming healthful habits. Formal instruction in the subject is assigned to the sixth year of the course. Special emphasis is laid on the need of instructing children as to the nature and effects of alcoholic liquors, the harmful effects of tobacco, etc. The committee also recommends that appropriations be made for promoting gymnastics in the country schools and that time be given for games and athletic events. The courses in religion are modified in such a way as to make the text of the Bible itself the foundation of early instruction, the teaching of the catechism being deferred to the last two years of the school course.

CONTINUATION SCHOOL.

In the opinion of the committee, the system of public instruction in Sweden has not kept pace with the requirements of the economic and social development of the last four decades. The elementary school, they say, hardly reaches the "upper limit of childhood." It should be extended by a school adapted to the large majority of pupils who, on leaving the elementary school, must devote themselves to earning a livelihood. For such pupils a continuation school is necessary, which offers opportunity for instruction at certain periods of the year or at certain hours during the week, the rest of the time being given by the pupils to their employment. In order that this continuation school should be effective, it must be practical in aim and attendance upon it obligatory. The school should keep

in view the practical work in which the pupils are employed, or which is to be their future life calling, and should make this work as far as possible the center of its instruction; at the same time, it must be considered that the main end of the instruction is to "further the moral and mental development of the pupils and make them useful members of society."

The report emphasizes the fact that the continuation school is not to be a trade school in the ordinary sense, but a school which adopts the point of view of the trade in its instruction. This instruction, it is said, should be "partly theoretical instruction *about* the trade; partly practical instruction *in* the trade." It is recognized, however, that the practical instruction can only be given when the school is "provided with a workshop, well arranged and equipped." In preparation for a continuation school of this order, a six-year folkskola would suffice.

Plans and details are given by the committee for different types of continuation schools; namely, schools for agricultural communities, industrial schools in connection with the iron industry, timber industry, and textile industry, and continuation schools for young women, giving instruction in home economics, in sewing, and commercial branches. As subjects common to all continuation schools, the committee recommends "knowledge of industry" (arbetskunskap), civil government, hygiene, and mother tongue. Of these, arbetskunskap is "the central subject, which gathers material from every side according to the nature of the practical work which is the object of instruction." Where no opposition is made, instruction in religion should occupy a part of the time.

In regard to the teachers of continuation schools, it is recognized that these will be drawn from the staff of the "folkskolor," but for the subject arbetskunskap there should be "specially trained men." In the opinion of the committee, courses for training such teachers should be maintained by the State.

As a rule, details regarding the continuation schools must be left to local school boards, but the committee recommends that the obligatory course shall include 360 hours of instruction; that the local authorities have the right to extend the time to a maximum of 540 hours; that the courses shall extend over two or three years; and that the minimum remuneration for a teacher shall be 2 crowns (53.6 cents) for each hour of service, the same to be paid by the State.

NORWAY.

INVESTIGATION OF PUBLIC SCHOOLS.

Following the precedent set by Sweden, the Government of Norway is considering measures looking to the reorganization of the public-school system, and as a preliminary has arranged for the investigation

of the public schools of foreign countries which, it is thought, may afford useful suggestions for guidance in this work. The present system is characterized by its special adaptations to local conditions; emphasis is placed in the schools upon the exercises and studies which promote manual skill and interest in the local environment and industries. The need, however, of a broader education for the teachers of elementary schools and of more extended instruction, especially for the rural population, is recognized.

THE SYSTEM OF AGRICULTURAL EDUCATION.[1]

The existing system of agricultural education comprises a central institution and local schools. The former is the State Agricultural Academy at Aas, which was established in 1856 and organized in its present form in accordance with a law of May 22, 1897.

THE STATE AGRICULTURAL ACADEMY.

The aim of this institution, as stated in the law, is—

to impart knowledge based on scientific principles for the training of agriculturists, silviculturists, allotters, and dairyists, as also to further scientific research in the fields which the academy covers.

The academy is organized in two classes:

(*a*) A common class of one year.
(*b*) A vocational class, divided in the following departments:
  (1) The agricultural department, one year.
  (2) Department of allotment, one year.
  (3) Gardening, one year.
  (4) Dairying, one year.
  (5) Silviculture, two years.

In the common class the instruction begins in the middle of August and closes June 20 of the following year. It comprises mathematics, surveying, physics and meteorology, chemistry, mineralogy and geology, botany, zoology, study of soils, drawing, bookkeeping, national economy, and, for silviculturists and gardeners, silviculture and gardening.

The vocational classes include the subjects common to all branches of agriculture, with specialties according to the particular department.

THE LOCAL (AMT) AGRICULTURAL SCHOOLS.

In addition to the agricultural academy there are numerous local agricultural schools maintained by the amts (counties) with aid from the State. The first local school of this character was founded in 1825, and the number has been steadily increasing; at the present time 17 of the 20 amts have one or more such institutions. They are conducted on the same general plan, under the supervision of the

[1] Particulars derived from Det offentlige landbruksvaesen i Norge indtil 1914, by G. Tandberg, the director of agricultural education, published by Grøndahl & Sons, Christiania, 1914.

department of agriculture; the course of instruction covers one and one-half to two years, including practical work on the school farm, which is supplied by the district. The recent investigation showed that many of these schools were in a very unsatisfactory condition, and it is proposed that the amount of the State aid shall be increased and the schools brought under closer supervision and conducted in a more systematic manner and with greater regard to the relation between scientific knowledge and its practical application to farm work.

A recent departure in this local provision is that of the "movable agricultural schools" for small farmers. An example is the movable school established in the Nordlands Amt in 1911, offering two three-months courses in selected places during the winter. Naturally in this case the instruction can not be supplemented by farm practice.

Norway also has several important private agricultural schools, among them a winter school at Christiania, and a similar one at Ørsten, founded by the young people's association of that town; both of these receive aid from the State.

MOVABLE AGRICULTURAL COURSES.

The subject of instruction for petty farmers was brought up for consideration in the budget of agriculture for 1912. In presenting the subject the minister said:

> The matter of prime importance is to arouse the interest of the farming population; especially to make the petty farmers realize that scientific knowledge is of importance for their work. And if this is to be successful, there is no other way than to bring the means of instruction to their very doors; the courses must be given in every community. It is the same method that has been used in other countries to awaken the interest of the petty farmer.

The following plan for this new departure was outlined by the department of agriculture:

> Movable agricultural courses are to be arranged with a program of instruction especially fitted for the small farmers. As teachers for these courses men are to be appointed who have received special training for this work. Teachers are provided with material, easily packed, consisting of such things as are in use: Plants, seed for sowing, seed of weeds, fertilizers, models, etc.
>
> With this outfit they travel about in winter, or, if there is enough demand, the entire year, from one community to another, and conduct courses in the schoolhouses. The length of the courses is adapted to the conditions in each place. To begin with, it will probably be necessary to limit them to one or two weeks. The instruction is given in the afternoon or evening three or four hours a day.
>
> A course is worked out which the teacher must follow, that the time may be well used and the instruction not become a matter of chance. The course must give something of evident practicability; it must, in other words, come as near home to the work of the farmer as possible. At the same time it must arouse interest, so that the listeners shall desire to have the course continued and to extend their knowledge further. There must be the chance to choose between different subjects of instruction according to conditions in the community in question, but the method of instruc-

tion should be the same everywhere. The instruction must be methodical and well prepared, nothing left to chance.

For free distribution at the courses small pamphlets are printed which discuss useful points for the small farmer.

The courses are made known by means of posters, announcements, and course outlines, which are sent a week or two in advance to the teachers in the common schools with the request that they be sent home with the children. These outlines should be illustrated by pictures giving an idea of what will be offered, and they must be made interesting, so that they may tempt the reader to apply for the course.

Admission to the courses should be free for every man or woman who has anything to do with agriculture or with the side branches of agriculture. It is possible that in order to arouse the interest of the small farmer it will be necessary at first, just as in Switzerland, to offer stipends.

The expenses should be divided between the State, the amt, and the communities in which the courses are held. Probably the community and the amt should offer an equal share and the State supply the rest. The fairest plan would be that the State handle three-fourths of the expenses, just as it does in the present instruction in agriculture.

Stress is placed on the excellence and the fitness of the teachers for their task, for on them depends to a marked degree whether or not the plan shall meet with success and the attempt show any good results.

PREPARATION OF TEACHERS.

It was urged by the department that in drafting a new plan of study for the agricultural academy, provision should be made for preparing teachers for the local agricultural schools and also for the movable courses; in this connection the example of Denmark was referred to, and in view of the time that would be required to prepare the new teachers of agriculture it was advised that, for the present, the traveling teachers, before they begin their work in Norway, should have opportunity to study a few months at the Danish schools for cottagers or at the schools for small farmers in Sweden.

The scheme thus presented was put into operation last year, 43 courses of instruction having been offered; the attendance was good, in some places reaching 200, and the traveling teachers report that great interest had been manifested by the farmers and that the instruction had been extremely useful.

The arrangement is regarded as temporary, and a proposition has been recently presented by the department of agriculture for establishing a special school to prepare teachers for the work of instructing petty farmers and for the gradual establishment of schools for farmers of this class. This motion is still pending in the Storthing.

DENMARK.

Denmark has become an object lesson to the world by reason of its system of rural education and its agricultural prosperity. Every nation recently awakened to the importance of the subject and to the dangers that threaten when rural populations are ignorant and shift-

less has turned to Denmark for direction in the effort at rural uplift. The United States, although later in the movement than European nations, is now alive to this necessity, and in its turn ready to profit by this example. Obviously, the subject can not be covered in the brief survey of the year, but it has been very fully treated in several bulletins published by the bureau.[1] The most recent of these deals with the Danish folk high school, which has had a wonderful effect in enabling rural communities to hold their own against urban influence. To quote the author:

> Strong churches and well-organized schools in charge of devoted and well-trained men who are giving their lives to the work in the open country lie there as permanent citadels against any outside aggression. * * * Pastors and teachers have their share in the remarkably effective extension work emanating from the folk high schools and local agricultural schools.

These activities all belong to the period after the school life has finished, but the schools themselves have an equal bearing upon rural prosperity. They not only impart instruction in the elements, but they train "young men and women for a varied rural artisanship." As a result of this fortunate combination of school training and community exercises, the entire rural population of Denmark have learned to take "the right outlook on life," and are bearing the most important part in the "social economic evolution of the country."

HIGHER INSTITUTIONS.

The veterinary and agricultural college at Copenhagen has played an important part in promoting the remarkable development of the agricultural and dairy industries of the Kingdom. The Polytechnic Institute, situated at the capital, has recently been installed in new buildings, thoroughly appointed for the various branches of technical education. The State contributes to its support an annual appropriation of 345,000 kroner ($86,200). This institute maintains close relations with the university, many lectures and laboratory facilities being common to both.

The culture of Denmark centers in the University of Copenhagen, which from the time of its foundation, 1478, has exercised great influence upon the intellectual life of northern Europe. Students who have completed the course of the gymnasia are admitted to the university without examination. The studies of the first year are the same for all students and lead to the degree of candidate of philosophy. After the first year the students enter upon professional courses according to their choice. These courses vary in duration from the four or five years required for the degree of master of arts

[1] Foght, Harold W. The Educational System of Rural Denmark, Bulletin, 1913, No. 58. The Danish Folk High Schools, Bulletin, 1914, No. 22.
Friend, L. L. The Folk High School of Denmark, Bulletin, 1914, No. 5.

or master of science to the seven or eight years required for the diploma of candidate in medicine. The university is supported by the income of its own funds and an annual appropriation from the State of about 900,000 kroner ($241,000). There are no tuition fees, but small charges for extras are made. Between three and four thousand students are in annual attendance at the university and the Polytechnic Institute.

In addition to the influences that have raised rural life to such a high level in Denmark, there is a development in respect to ideal interests that is extending its influences to other nations. These two tendencies are characterized in a contemporary journal as follows:

NATIONAL TENDENCIES.

Two tendencies have been chiefly dominant for a long time in Danish intellectual and cultural life; one is represented by the movement inspired by Grundtvig, the other is Brandesianism. The movement represented and led by Brandes claims the honor of having introduced modern European intellectual and cultural life into Denmark, while the movement fostered by Grundtvig is, in its origin and subsequent development, intensely national. While the former, which arose in the seventies, is a cult of the intellect, Grundtvig's movement aimed at satisfying man as man and above all the yearnings of the heart, both with respect to temporal and with respect to eternal concerns.[1]

BELGIUM AND THE NETHERLANDS.

INTRODUCTION.

The calamity which has overtaken Belgium in the course of the European war and the refuge afforded the homeless people by the Netherlands recalls an important period in the history of the two nations. From 1815 to 1830 Belgium formed with Holland the Kingdom of the Netherlands, and the influence of this union is still seen in many customs and institutions. The similarity of the educational systems of the two countries is very noticeable. In both, communal and denominational authorities have had supreme control over elementary schools, although the respective Governments have borne a large part of the cost of the schools. Both countries have also been distinguished by their liberal provision for industrial education and for the general use of those facilities by the young people of the working classes.

Ample support for higher education has also been characteristic of the two nations, while the distinction between the schools for the people and those attended by the wealthier classes has been less pronounced than in European countries generally.

[1] Dragehjelm, Hans. Die dänische Volkshochschule—eine geschichtliche Aufklärung. Neue Bahnen, 25; 495–96, August, 1914.

BELGIUM.

SYSTEM OF PRIMARY EDUCATION.

The system of primary education in Belgium was originally organized in accordance with the education law of 1842, which was abrogated by the law of 1879, passed during the temporary ascendency of the Liberal Party. In 1884 the Catholic Party having regained a majority in the legislature, a new school law was passed which returned to the conditions established in 1842. In accordance with this law primary schools were established and maintained by communal authorities, which were authorized also to subsidize parochial schools. The communal taxes for the support of the schools were supplemented by State and provincial appropriations. Normal schools for the professional preparation of teachers for primary schools were either State institutions or schools under private control approved by the State.

The new school law, which went into effect in May, 1914, continued the policies embodied in the law of 1884, but included a compulsory school-attendance clause, applicable to all children from the ages of 6 to 14, completed.

At the latest date reported (1912), the enrollment in the primary schools was 935,377, equivalent to 12.5 per cent of the population (estimated at 7,500,000); there were also 277,721 children under 6 years of age in the infant schools (écoles gardiennes) and 249,121 pupils in the public classes for adults.

THE FEDERATION OF TEACHERS.

The General Federation of Belgian Teachers has long been regarded as one of the most vigorous and progressive associations of the kind in Europe. In its session held in March, 1914, the association considered, particularly, the infant schools of the Kingdom. The condition of these schools in the smaller communes was severely criticized, buildings and equipment being miserable and classes overcrowded; in striking contrast were the infant schools in the large cities. These were characterized as veritable "school gardens," provided with suitable buildings, ample courts and grounds, and conducted by teachers expert in the art of developing young children by means of plays and free activities. The federation placed itself on record in favor of the Froebelian system for infant schools, and urged the increase of provision for training teachers in this system. Attention was called to the fact that the normal school for women in the city of Brussels included a section for this special work, and classes in the system and methods of Froebel were maintained by the cities of Liege, Antwerp, and Ghent. Two provincial schools for the training of kindergarten teachers had also been established, one in the Province of Hainaut and a second in the Province of Brabant.

SECONDARY SCHOOLS.

Belgium was one of the first nations to depart from the medieval system of higher education by the provision of two orders of secondary schools. The higher class, of which the royal athénées were the type, prepared students for the universities and highest technical schools; they numbered 35 in 1912 (20 athénées, 15 colleges), with 8,323 students. The lower class of secondary schools were intended to provide advanced instruction for students who did not expect to enter upon the higher professions; at the same time their studies were so arranged that students might pass from them to the upper classes of the athénées. The secondary schools of this order for boys numbered 90 in 1912, with 19,765 students. The corresponding schools for girls numbered 44, with 10,104 students. Professors of the higher orders of secondary education were as a rule university men, but four normal schools were maintained for the professional training of teachers for the lower secondary schools. Of these, two for men had 52 students in 1912, and two for women 157 students.

The secondary schools were established by the State, by communes with the aid of the State, or were subsidized private institutions. Public appropriations for secondary education amounted in 1911 to 6,888,157 francs ($1,377,631). Of this amount the State contributed 66½ per cent, the communes 32½ per cent, and the Provinces the small balance.[1]

THE UNIVERSITIES OF BELGIUM

The University of Louvain, which was destroyed August 2, 1914, was founded in 1426 by John IV, Duke of Brabant, and with the approbation of Pope Martin V. It was for many centuries the only institution of higher education in the dukedom. It was suppressed in 1797, and during the Napoleonic era Belgium remained without universities. By a decree of September 25, 1816, a university was reestablished at Louvain; but it was not until December, 1835, that it was reorganized under the Episcopal Body of Belgium; since that date it has been one of the chief Roman Catholic universities of Europe.

The development of the University of Louvain during the last half of the nineteenth century was marked by the organization of special schools and institutes, answering to modern requirements. Among these should be noted the philological institute and a school for instruction in the Scriptures and in oriental languages, both founded in 1844; the latter was the beginning of the oriental school that has since become famous. In 1864 there was established at the uni-

[1] The statistics relating to education in Belgium were taken from the Annuaire Statistigue de la Belge et du Congo Belge for 1913, published in 1914.

versity in connection with the faculty of sciences a school of civil engineering, industry, and mines; in 1878 a school for the training of agricultural engineers was added and the new anatomic institute, now widely known as the Vésale Institute. A few years later provision for the technical professions and pursuits was increased by the erection of a micrographic institute, an institute of practical physics, a higher brewing school, and a laboratory of bacteriology; the last named has developed into a great institute. These extensions were soon followed by the founding of a chair of electro-technical instruction, and in the faculty of philosophy and letters there was organized a course in moral and historical sciences leading to a special doctorate, and in the faculty of law a practical course in economic and social sciences. During this long period the standard of instruction in the older faculties was well maintained, and new chairs were founded from time to time, so that the University of Louvain offered very complete facilities for acquiring the learned and technical professions.

The scholastic organization of this ancient university, as set forth in the Annuaire for 1914, included the following faculties: Theology, law, medicine, philosophy and letters, and faculty of sciences. Adjuncts of the last-named faculty are special schools of arts and manufactures, civil engineering and mines, and the agronomic institute. The school of commercial and consular sciences is not attached to any one of the faculties, but has its independent organization. Under the stimulating direction of special professors, the student body of the university is organized in several associations which promote good comradeship and intellectual pursuits. Among these is the society formed in the interests of the students of the Flemish districts, a philosophic society under the presidency of the rector of the university, a philological society, and a circle for the cultivation of French literature.

In 1913 the university registered 2,870 students, distributed as follows:

Faculties:	
Theology	96
Law	698
Medicine	620
Philosophy and letters	419
Sciences	369
Special schools	444
Agronomic institute	224

The University of Brussels, like that of Louvain, was of private origin and has remained free from State control. It was founded in 1834 and has been maintained by private subscriptions. The faculties and special schools which the university comprised, with the distribution of students in the same in 1912 and in 1913, were as follows:

Students in the University of Brussels.

Faculties and schools.	Students—	
	In 1912.	In 1913.
Faculties:		
Philosophy and letters	144	163
Sciences	297	290
Law	199	203
Medicine	278	288
Special schools:		
Polytechnic schools	257	274
Schools of political and social science	70	64
School of commerce	93	102
Total	1,333	1,384

The two remaining universities of Belgium, namely, the University of Ghent and the University of Liege, are State institutions, both dating back to a decree issued in 1816 by King William I, Belgium being at the time part of the Kingdom of the Netherlands. Both institutions were reorganized in accordance with the law of 1835, passed directly after the separation of Belgium from Holland. The development of the two State universities has been marked by large provision for the exact sciences and by the establishment of auxiliary technical schools. At Ghent the development in practical instruction has related chiefly to the arts and manufactures characteristic of that region, to architecture and engineering; while at Liege special attention has been given to mining engineering. The two universities have also been equipped for training professors for secondary schools, the faculty of sciences at Ghent having been utilized for the preparation of professors of sciences, and the faculty of philosophy and letters at Liege for the training of professors of the classic humanities. During the last decade of the nineteenth century the resources of the two State universities were greatly increased by the erection of new buildings and their equipment for scientific and technical purposes. Ghent was provided with an experimental institute of applied mechanics, institutes of hygiene, of bacteriology, and of physiology, and an extensive garden for the use of the students of natural science. Large subsidies were also granted by the Government for the installation of the electrotechnical laboratory. In like manner Liege was supplied with a chemical institute, a clinical institute, fine building for the faculties of philosophy and letters and law, and extensions for the services of physics, hygiene, and the technical faculties. Through the munificence of a private benefactor, Mr. Montefiore, the university possesses an electrotechnical institute which is not only well installed but has received from its founder a capital of a million francs, the income to be used for the maintenance of the plant and the purchase of new apparatus.

The following table summarizes particulars respecting the two State universities as reported in 1912 and 1913:

Statistics of the State universities.

Faculties and schools.	1912	1913
GHENT.		
Faculties:		
Philosophy and letters	86	91
Sciences	99	109
Law	200	200
Medicine	150	152
Special schools:		
Civil engineering	466	341
Arts and manufactures	222	360
Total	1,223	1,253
LIEGE.		
Faculties:		
Philosophy and letters	175	137
Sciences	919	901
Law	468	467
Medicine	241	236
Technical faculties:		
Mines	353	367
Arts and manufactures	22	19
Special schools:		
Mechanical engineering	79	108
Electrical engineering	390	310
Special students	214	248
Total	2,861	2,793

THE NETHERLANDS.

Since the separation of Belgium from the Kingdom of the Netherlands the latter name has been retained as the official designation of Holland. The Kingdom covers an area slightly exceeding that of Belgium, and like the latter is densely populated. According to the estimates of 1910, the total population of the Netherlands was 5,898,429, and the density 466 inhabitants to a square mile. The colonial possessions form two groups covering altogether an area of 785,000 square miles. The chief group is that of the East Indies, including the rich islands of Java and Sumatra. The second group comprises several small islands in the West Indies, the largest being Surinam and Curaçao.

Primary or popular education is provided by a State-aided system in which schools under private management, chiefly denominational, bear an important part. The public schools are established by the communes or in case of necessity by the Government.

The Netherlands holds high place among European nations for the general diffusion of knowledge and the low degree of illiteracy. In 1900 the record of the army recruits showed 1.4 per cent of illiterates; in 1912 this had fallen to 0.8 per cent. This improvement over a condition which already was very satisfactory is attributed to the effects of the compulsory-education act passed in 1900.

The following table summarizes the statistics of elementary and secondary schools comprised in the report of the minister of education for 1911–12:[1]

Statistics of elementary and secondary schools, 1911–12.

Classes of schools.	Number of schools.	Teachers.	Enrollment.
Infant:			
Public	171		31,416
Private	1,112		138,769
Elementary:			
Public	3,213	18,817	566,867
Private	2,126	12,404	365,887
Middle	104	1,627	15,153
Industrial	435	3,195	36,803
Navigation	11	98	913
Secondary, classical	31	2,527	471

The registration in the State universities in 1912–13 was as follows: Leiden, 1,211 students; Utrecht, 1,096; Groningen, 579. The municipal university at Amsterdam had 1,215 students and the private university in that city 150.

In addition to the schools included in the table there are many technical schools, and also a university of private foundation at Rotterdam with special equipment for the sciences relating to commerce.

The expenditure by the Government for education amounts annually to about thirteen and a quarter million dollars. The communes increase this by nearly eight millions.[2]

ACTIVITIES OF THE TEACHER'S ASSOCIATION.

The Teachers' Association of the Netherlands (Nederlandsch Onderwijzers-Genootschap), at Amsterdam, has maintained for the past four years a course of instruction in pedagogy for teachers who are interested in the science of education and in researches pertaining to the nature of young children and adolescents. The present year the association looked to the normal school at Brussels for assistance in carrying out its purposes with the result that Prof. Jonckheere was delegated for that mission by the Belgian minister of science and art and eventually submitted a report of the work. The instruction of the session was grouped around three main topics as follows: (1) Normal children and abnormal children; (2) scientific pedagogy; (3) pedology (facts and application). The subjects were treated by different professors or specialists of repute. The

[1] Published in 1914.

[2] The organization of a system of public instruction in the colony of the East Indies, one of the most important events in the recent history of the nation, was described very fully in the Report of the Commissioner of Education for 1911, vol. 1, ch. 14.

lessons by the professors were followed by discussions and the endeavor was made to draw out when possible conclusions helpful to teachers in their daily work.[1]

INTELLECTUAL BONDS BETWEEN BELGIUM AND HOLLAND.

Special interest attaches at this time to the sympathies and sense of kinship cemented between the Hollanders and their Flemish brothers in Belgium, through the influence of a school of Flemish poets and novelists which started in Belgium with the works of Guido Gezelle, called the Burns of Flanders, and is continued by a group of writers who have given very full expression to the Flemish spirit and aspiration. Naturally Holland is the only country outside of Belgium where these writings are read and understood. Dutch publishers compete with each other for the opportunity of publishing the works of these Flemish writers, and the most popular of all the song writers, Emiel Hullebroek, has delighted all Dutch lovers of popular music. To quote a recent article on the subject:[2]

> Holland repays these beautiful gifts by sending her famous actors, Royaards and Bouwmeester, to play in Ghent, Antwerp, Bruges, Brussels; by sending her scholars to Belgium to lecture before the students of Brussels and Ghent; and every summer members of the university staff at Leiden give a course of holiday lectures to students from Belgium universities.
>
> This intellectual and literary intercourse and mutual appreciation has created, of late years, a strong feeling of what their German neighbors would call "Zusammengehörigkeit." The Dutchman has begun to realize that his nation covers a wider field than a small area inclosed within his frontiers; the Fleming that it is not to France that he must look for inspiration congenial to his mind and natural talents. Both have conceived the possibilities of a "Greater Netherland." Groot-Netherland is the name of a leading literary monthly, which is edited by the Dutch novelist Louis Couperus and his Flemish brother-in-art Cyriel Buysse. An intellectual "Groot-Nederland" is the aim they have in view.

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[1] For full accounts of the courses see report by Prof. Jonckheere in Journal des Instituteurs for May 7, 14, and 21, 1914.

[2] Mr. A. J. Barnouw, in The Nation, Oct. 15, 1914.

CHAPTER XXXIII.

EDUCATIONAL CONDITIONS IN FRANCE AND SWITZERLAND.

CONTENTS.

France: The system of public instruction—State of primary education—The teaching force: Classification of teachers; salaries; proposed change in method of appointing—Continuation schools—Statistical summary—Secondary education: Current movements; questions discussed at the congress of professors; statistics—The universities: Financial needs; new equipments; University of Paris; departmental universities—Scholastic extensions: Paris; departments—Students: Distribution by universities; by faculties—Private foundations—Expenditures for the system of public instruction—Higher technical schools—Private and municipal activities—Commercial and trade training in Lyon.

Switzerland: Introduction—The Federal Polytechnic Institute—Statistical summary.

EDUCATION IN FRANCE.

THE SYSTEM OF PUBLIC INSTRUCTION.

The system of public instruction in France is marked by centralized control, close organization, and uniform operation throughout the country. The chief of the system is a cabinet officer, the minister of public instruction and fine arts. The incumbent is naturally changed with every cabinet crisis, but the stability of the system is not seriously affected thereby, the directors of the three great departments of the system, i. e., primary, secondary, and superior, being retained for long periods; even when changes occur the vacancy is generally filled by the logical successor of the departing officer.

The authority of the minister of public instruction is modified by the advice of a superior council of education, which is formed partly by appointment and partly by the free choice of the professors and teachers in the three departments of education. Acting in advice with this council, the minister drafts all laws modifying the system, determines the programs and regulations for all classes of schools, and prepares the annual budget for presentation to the legislature.

For local administration the system is divided into academies, 17 in number, each of which comprises a university, secondary schools, and primary schools. At the head of each group is the rector, an official of great dignity, appointed by the President of the Republic and subordinate only to the minister. He is assisted by an academic council, which, like the superior council, is professional in its membership. The rector is the executive head of the university of his area. He has controlling authority over the secondary schools, and,

nominally, also over primary schools; but the latter are under the immediate direction of inspectors (inspecteurs d'académie).

The unit of primary school administration is the Department, a civil district which for educational purposes is treated as a subdivision of an academy. France (including Algiers) comprises 90 Departments, which are unequally distributed among the 17 academies. Chambéry, the smallest academy, comprises 2 Departments; Paris, the largest academy, 9. The Departments vary in extent and in population. The smallest has 101,000 inhabitants; the largest (Seine), four and a quarter millions.

The expenses of primary education are met almost entirely by State appropriations; the proceeds of the local school tax being turned over to the State treasury.

Each Department includes two normal schools (one for men and one for women) and the several classes of primary schools. The civil head of every Department is the prefect, appointed by the President of the Republic, and the only political official who has any authority over schools. His chief function in this respect is that of appointing the teachers of primary schools, a right which has been bitterly opposed for over half a century. It is restricted somewhat by the necessity of making the choice from a list of candidates approved by the academic inspector.

It will suffice here to mention only the councils, academic and departmental, which advise in respect to educational matters and the corps of primary school inspectors appointed for each Department and subordinate to the academic inspector. Every commune in a Department is required by law to establish one or more primary schools, according to the needs of the population.

STATE OF PRIMARY EDUCATION.

France belongs to the group of nations that have made adequate provision of primary schools, and it is further distinguished by the fact that almost every school is in charge of a teacher specially trained for the work. The inspectors of primary education are chosen from persons who have obtained the requisite diploma as the result of a competitive examination, and who have had experience as teachers and school directors; hence there is cordial cooperation between them and the teachers. Provision is also made in France for adult education through the union of public and private agencies in a work which is nation-wide in extent and in effects.

The system of public primary education is, however, weak in two respects. The compulsory attendance law covers only the ages 6 to 13 completed, with exemption for children who pass the required examination at 12 years of age; there is no general provision for continuing the formal education of the mass of children beyond that period.

The salaries of teachers are also inadequate, and out of all proportion to their needs and the increased cost of living. For the last half decade these conditions have been the subject of great solicitude on the part of the administrative and legislative bodies responsible for popular education. They are conditions not peculiar to France, but of peculiar urgency in that country because of its political organization and the changing conditions of its industrial life.

THE TEACHING FORCE.

The teaching force of the primary school comprises stagiaires, or probationary teachers, and titulaires, or teachers with full appointments. The latter are divided into five classes, with ascending scale of salaries from the fifth to the first class. The law determines the percentage of the entire number allowed for each class.

Teachers may be retired with pension at the age of 60 years if they have been in the service 30 years. Advancement from one grade in the salary scale to the next depends upon the vacancies that exist, and the latter are largely determined by the number of teachers who reach the age of retirement.

The most urgent problem in respect to primary schools is that of teachers' salaries. They are not only inadequate, but they are below the scale that is paid in other branches of the civil service requiring much less preparation than the teaching service. Further, on account of the system of promotion, teachers entering the service must wait a long time before they have any hope of reaching the better-paying positions. The difficulty has become acute; rural teachers have been particularly dissatisfied, and the number of candidates for admission to the departmental normal schools has fallen off. During the current year the Chamber of Deputies voted an amount for teachers' salaries that would have made general promotions possible, but these estimates were reduced in the Senate, and the emergencies of the war prevented any further effort in this direction. The status of the teachers remains, therefore, as it was fixed by the financial law of 1905. The salaries actually in effect for the latest year reported (1912), exclusive of cities having 150,000 inhabitants or more, were as follows:

Classification and salaries of teachers.

Classes of teachers.	Men.	Salary.	Women.	Salary.
First class	7,073	$440	6,320	$400
Second class	15,352	400	11,684	360
Third class	9,697	360	10,430	320
Fourth class	7,623	300	11,486	280
Fifth class	7,798	240	15,835	240
Stagiaires	3,436	220	6,779	220
Congréganistes (members of religious orders)	.....	.....	147	.....
Total	50,979	.....	62,681	.....

Additional allowances were, for masters of the sixth class, 200 francs ($40) in lieu of residence; for masters of the first class, 400 francs ($80) in lieu of residence.

An important measure adopted by the Chamber of Deputies during the year provided for the transfer of the appointing power from the prefects of Departments to the academic rectors. In a review of this action, M. Buisson recalls that in 1850, when the law was passed giving the prefects the right to appoint teachers, the action met with intense opposition. It was explained, however, that it was intended at the time to save the teaching force from socialists and reactionary elements and would not be in operation more than six months; but it has been maintained for over 60 years, with the single modification introduced by the education law of 1886, which limited the choice of the prefect by the approval of the academic inspector. The new measure, as it passed the Chamber of Deputies, provided that all deliberations affecting the positions of teachers should be conducted in a committee consisting of the academic inspector, the primary inspectors, and representatives of the normal and primary schools of the particular department.

CONTINUATION SCHOOLS.

Leaders of all parties in France are agreed that the provision of continuation schools is an urgent need. Without them France must fall to a low plane as regards popular intelligence and commercial and industrial efficiency. The work of adult education, carried forward mainly by the unselfish efforts of elementary teachers, does not reach children just free from school, and even in its application to adults it falls short of adequate results, from the want of unified direction and close organization. Measures for prolonging the term of compulsory school attendance and appropriating funds for the establishment of continuation schools have been taken up annually by the legislature for nearly a decade, but no effective action in this matter has resulted.

The present premier of France, M. Viviani, championed the cause last year during his brief term as minister of public instruction, but was forced to admit that the time was not ripe for action in the matter. He was not able even to secure a small appropriation, 35,600 francs ($7,120), for the purpose of carrying on an active campaign, under official auspices, in behalf of the cause and of coordinating and directing the work of private agencies in this field of endeavor.

THE EDUCATION OF ADULTS.

The twentieth report on the work of popular education, submitted to the minister of public instruction by M. Edouard Petit, covers the year ending June, 1914. The work was hindered during the year by the severe winter, social disturbances, and the call for all young

men 20 years of age to enter upon their three years' term of military service (law of 1913). In the evening classes the attendance of young men fell off, and the loss was not entirely made up by the increase in the number of young women. The number attending different courses of instruction for adults was 54,493 (for young men, 32,159; young women, 22,334); the number attending popular lectures was 61,027.

To this important work 83,339 teachers, men and women, and 15,442 persons not connected with the schools freely gave their services. The expenditures were met chiefly by private subscriptions and municipal appropriations, the latter amounting to $315,814. The State contributed about $200,000, of which $13,140 was accorded to teachers as indemnities or rewards.

The Musée Pédagogique and the Ligue de l'Enseignement have large collections of magic lantern views, which have been distributed all over the country for use in classes and lectures. The popularity of these fixed views, however, is declining before the superior attractions of motion pictures, and the ligue is now considering the means of supplying the latter for the classes and lectures.

Included in this general movement are the following social welfare activities:

Mutualités Scolaires (mutual aid societies), numbering 4,666, with 870,094 members, of whom 477,775 were schoolboys and the remainder girls. This organization maintains a campaign in favor of preventive hygiene. The Paris branches united during the year to send sickly children included in the organization to an open-air school at Montigny-sur-Loing. Other branches devoted part of their funds to sending weak and delicate children to vacation colonies in the country.

Petites A. (associations of former pupils): These associations, which are recreative in their aim, numbered 7,042. They organize excursions and trips, engage in sports, and form companies for physical training, and also classes for moral and civic instruction.

Patronages Scolaires, which number 2,878, are local societies pledged to look after the welfare of the children of their respective communities.

STATISTICAL SUMMARY.

For the last year reported (1911–12) the department of primary education comprised 3,986 infant schools (écoles maternelles, for children 5 to 6 years of age) with 8,693 teachers and 620,561 pupils; 82,787 primary schools (for children 6 to 13 years), with 158,367 teachers (men 66,146, women 92,221) and an enrollment of 5,682,352, equivalent to 14.6 per cent of the population. Clerical schools formed only a small per cent of the total provision; private secular

schools numbered 12,945, employed 35,618 teachers, a little more than one-fifth the total number, and enrolled 1,007,743 pupils, or a little less than one-fifth the total.

Included in the total enrollment were 102,687 pupils (51,057 boys, 51,630 girls) in higher primary schools or advanced classes (cours complémentaires). These higher grade schools may retain pupils up to 15 years of age; for admission, candidates must have obtained the certificate of primary students. The schools are not vocational, but offer special courses in drawing, manual work, and elementary science. They must be distinguished from the "écoles professionnelles," that is, schools of commerce and industry of the same grade but under different administration. These enrolled the same year 15,000 students. Thus, altogether, about 118,000 young people of the industrial classes were continuing their studies in schools comparable with the upper grades and the junior high schools of the United States. In the organization of the French system, the normal schools for training elementary teachers are included in the department of primary education. The total number of primary normal schools is 166 (84 for men, 82 for women). Their enrollment in 1912–13 was 9,588 (4,629 men, 4,959 women). The current expenditure for primary education is very nearly met by the State appropriation, which amounted in 1913 to 225,000,000 francs ($45,000,000). The State also contributed 10,000,000 francs ($2,000,000) toward the construction of school buildings.

SECONDARY EDUCATION.

CURRENT MOVEMENTS.

In considering the current record of secondary education in France, it is important to keep in mind two characteristics: First, the complete separation of secondary schools, lycées, and colleges, from primary schools; second, the organization of the secondary schools in two cycles, the first comprising four years, the second three years. In regard to the first condition, it should be recalled that recent efforts have been directed to unifying the courses of primary and secondary studies, and with a certain measure of success; as a rule, however, children of the class who go to the primary schools never expect to enter the State lycées or even the local colleges, which are of a lower grade.

The programs of secondary education adopted in 1902 provided for parallel sections, as follows: In the first cycle, two sections for the first two years, one with Latin, the other without; in the fourth and third classes a third section with Greek. The second cycle comprises four sections; namely, section A, termed the Latin and Greek section; section B, Latin; section C, Latin and sciences; section D,

sciences and modern languages. Three of these sections, it will be seen, preserve the study of Latin—make it in fact the center of their instruction, and may, therefore, properly be regarded as classical sections. The relative strength of these sections has great significance in respect to the present state of secondary education in France which, above all other countries, preserves the classical spirit. The enrollment in the three sections with Latin and in the section without Latin for five successive years is shown in the following table:

Distribution of students by sections in lycées and colleges, for specified years.

Years.	Students in lycées.		Per cent in Latin section.	Students in colleges.		Per cent in Latin section.
	In sections with Latin.	In sections without Latin.		In sections with Latin.	In sections without Latin.	
1908	19,996	17,544	53.27	8,369	12,413	40.27
1909	20,413	17,555	53.76	8,501	12,547	40.39
1910	20,777	17,193	54.72	8,665	11,776	42.39
1911	21,368	16,593	56.29	8,902	11,244	48.19
1912	22,629	16,189	58.29	9,514	10,621	47.25
1913	23,190	15,542	60.61	10,218	10,359	49.66

The official regulations not only prescribe the program to be followed, but determine the amount of time to be allowed for each subject. Attention was called in the commissioner's report for 1912 to changes in the distribution of time which went into effect October, 1913. These were brought about by the common agreement of teachers, parents, and physicians, and they provided for a reduction in the number of recitation hours and in the number of different subjects between which the time of the pupil was divided and his attention distributed. By the union of allied subjects it was found possible to arrange so that in the earlier years a pupil might remain longer under the direction of one master whose essential task it should be to teach him to study; as the pupil grows older he may well be left more to his own personal efforts. In the group of language studies new emphasis was given to the pursuit of Latin as a means of perfecting the student in his native tongue; an endeavor was also made to prevent further decline in the study of Greek by creating a classical division in which this language should be obligatory. The effect of these changes can not yet be determined; they indicate, however, the careful scrutiny of secondary education, which is regarded as the chief formative influence in national life.

QUESTIONS DISCUSSED AT THE CONGRESS OF PROFESSORS.

The tenth congress of the national federation of professors in the lycées for boys, and of the teaching corps in those for girls, held its annual meeting in Paris at the Lycée Louis le Grand, beginning April

17 of the present year. The president of the federation in his opening address reported the partial success of the efforts of a committee on salaries appointed at the meeting of 1913. This was indicated by a decree issued September 6 providing for the more rapid advancement of professors, and thus increasing their chances for the higher salaries. The state of national finances precluded action on the plan for a general advance in the salaries of all positions. The discussion of the salary question was continued during the current meeting, but without resulting in any additional propositions.

Second only in importance to the salary question was that of the reorganization of secondary education for girls. In the original scheme of study for these institutions no effort was made to duplicate the program of lycées for boys, the distinctive character of the former being determined by reference to the careers, social and industrial, upon which young women were likely to enter. The opening of higher teaching positions and other professional careers to women has greatly increased the number who desire university training with the opportunity of securing diplomas; but since the lycées for girls did not prepare students for admission to the universities, these ambitious young women were obliged to make their preparation by private tuition. In order to correct this injustice it was determined in 1909 to open a special course in a few lycées for girls similar to that of the lycées for boys, and, like the latter, preparing for the bachelor's diploma. This action and the continued demand for larger provision for the education of women have led to the current movement for reorganizing the scheme of secondary education for girls. In the discussion before the federation the question of a model scheme for the education of girls was considered from every standpoint and elicited a variety of opinions; but it was universally agreed that full provision should be made for placing girls on an equality with boys in respect to admission to the universities. Differences of opinion arose in respect to the best way of accomplishing this end, while at the same time preserving the adaptation of the courses of instruction to the needs of the majority of young women. The commission finally adopted a proposition offered by Prof. Suran, of the Lycée Marseille, as follows: The program of studies for the lycées for girls should cover seven years. After the close of the first year it should be organized in two parallel sections up to the end of the sixth year. One of these sections should lead to the diploma of studies created for this class of institutions; the other to the first part of the examination for the bachelor's degree; the seventh year should be given to preparation for the second or final part of that examination. This resolution embodies the prevailing opinions in France, at the present time, with respect to the conduct of higher education for women. It is to be differentiated from that of boys, but with full opportunity for those

young women who so desire to fit themselves for admission to the universities.

Statistics of public secondary schools, 1912.

Classes.	Number.	Number of students.
Schools for boys:		
Lycées	112	62,092
Colleges	230	36,796
Total	302	98,888
Schools for girls:		
Lycées	53	19,898
Colleges	79	11,882
Secondary courses	57	5,565
Total	189	37,345

Appropriations by the State for secondary education for the years specified.

Institutions.	1882	1902	1913
Secondary schools for boys:	*Francs.*	*Francs.*	*Francs.*
Lycées	12,888,800	13,071,300	16,835,850
Colleges	2,450,000	5,087,184	9,085,713
Secondary schools for girls:			
Lycées, colleges, and special classes	300,000	2,369,850	7,679,894
Common expenses	3,017,600	7,150,360	10,438,450
Total expenses	18,646,400	27,678,694	44,039,907
United States equivalent	$3,538,755	$5,341,988	$8,499,702

THE UNIVERSITIES.

The universities of France are State institutions, depending chiefly upon annual appropriations from the public treasury for their maintenance. The measure of autonomy conferred upon them by the law of 1896 has had the effect of stimulating their individual activities and of drawing support from local sources. At the beginning of the present year the prospect of the universities as regards increased income and vigorous action was extremely promising, but the catastrophe of war has indefinitely postponed the realization of the hopes then exacted, and at present, when professors and students are in the heat of the conflict and the life of the nation threatened, it is only possible to indicate the direction in which progress was expected by reference to measures proposed and recent developments.

FINANCIAL NEEDS.

The need of more liberal appropriations for the universities was urged upon the attention of the Senate in the current session by the chairman of the budget committee, M. Lintilhac, who called particular attention to what he termed the "sad and humiliating condition of the laboratories." He recalled that not long since an eminent pro-

fessor at the Collège de France, renowned for his researches into the causes of diabetes, which had been taken up with great enthusiasm by scientists of other countries, had been obliged to discontinue his work for want of necessary support. Another professor of the Collège de France, the fame of whose researches had attracted students from Chile, had only "an old shed" in which to receive them. The dilapidated walls were repaired at their own expense, and the electrical apparatus necessary for continuing the researches was bought by the professor with the aid of the foreign students. Even the faculty of sciences of the new Sorbonne has its laboratories either in the basement, where the light is poor, or in the upper story of the building which is reached only by climbing long flights of stairs.

NEW EQUIPMENTS OF THE UNIVERSITY OF PARIS.

This depressing view was relieved by the prospect of immediate constructions for which the necessary sites and funds have already been secured. Most important among the extensions for the University of Paris is the Institute of Radium for which the university and the Pasteur Institute have furnished 680,000 francs ($136,000), in addition to the site furnished by the university alone. The radium institute will be organized in two parts, one devoted to scientific researches and placed under the direction of Madam Curie and her successors in the chair of physics named for Pierre Curie. The other devoted to medical researches under the direction of the Pasteur Institute. The building will occupy a portion of a large area on which the new institute of chemistry is under construction, and two other buildings which have been proposed, namely, one devoted to the history of art, the other to geographical science.

The University of Paris has recently received gifts and bequests, which, although small from the American standpoint, are large from that of France. A review of progress since 1905 shows donations between that year and 1910 amounting to 1,620,000 francs; since the latter year the university has received two legacies of 2,500,000 francs each, and two from the same donor, the Marquise Arconati-Visconti, of 500,000 francs each, to be employed in the best interests of the university. Individual faculties have also been favored, especially the faculties of medicine and science; the former by a capital sum of 200,000 francs ($50,000), the income of which is to be employed in researches in bacteriology and pathologic anatomy.

DEPARTMENTAL UNIVERSITIES.

Among departmental universities that have had important additions to their buildings are the following: Lille, which has just taken possession of its new library and of a mining museum. The university is arranging also for an annex to the faculty of medicine,

comprising a laboratory and clinical service of hygiene. This will be installed in an ancient convent and equipped by the Department du Nord.

At Lyon, the faculty of medicine will soon have at its command a new city hospital of the highest type, intended to be a model in organization and appointments.

At Nancy, an institute of physics and an institute of applied mechanics have been recently installed and equipped for practical work; institutes of aviation and geology are nearing completion. In connection with the faculty of medicine, a dental school, the first of its order in France, has been installed and fully equipped.

Rennes has become the object of unusual local interest and liberality, and without expense to the State treasury has been recently enriched by new buildings and appointments for a school of medicine. Students at Rennes have an advantage from the fact that the university library, the municipal library, and the collections of municipal archives are all situated on the same grounds. A similar concentration is noticeable at Toulouse, where the university library, and the historic art collections are housed in close proximity to each other.

SCHOLASTIC EXTENSIONS.

In addition to the increase in material resources should be noted extensions of the curricula of the universities through the foundation of new chairs and provision for auxiliary courses of instruction. At Paris these extensions are naturally most varied, as befits its wide scope, but even here special tendencies are noticeable. The departmental universities are purposely developing specialties that pertain to their local or traditional interests. These tendencies are illustrated by the following examples:

PARIS.

Faculty of law.—Course in penal science, by professors of the faculties of law and of medicine; courses in adminsitration and finances, given by members of the faculty, aided by an inspector of finances, and other officials. Course leads to a certificate; course in colonial legislation raised to the rank of a chair in 1909.

Faculty of sciences.—Course in applied chemistry raised to a chair in 1908 by means of a donation of 100,000 francs ($20,000) from the Society Solvay & Co. and 28,000 francs ($5,600) from the syndicate of chemical products, Paris.

Faculty of letters.—On account of the suppression of the State faculty of Protestant theology, the courses in history, which it comprised, have been transferred to the Paris faculty of letters. There has also been great extension of the courses in modern European languages with subdivisions under special professors.

DEPARTMENTS.

Provision for new and extended courses of instruction in geography has been made since 1905 at Bordeaux, Clermont, Grenoble, and Rennes.

The following are notable examples of provision for specialties pertaining to local industries or interests:

At Besançon a course of instruction in chronometry; at Clermont a school of industrial chemistry annexed to the university; at Grenoble an institute of commercial instruction; at Lille, Caen, and Toulouse special courses in the history of local art and antiquities have been organized. Lyon has given great extension to the study of the Orient, including languages, social and political institutions. A noticeable feature of the provision for linguistic studies is the organization of courses of instruction and research in phonetics at Grenoble and Lille. This subject has assumed such importance in connection with researches into the origin of language that the University of Paris has created an institute of phonetics common to the faculties of letters, of sciences, and of medicine.

The following tables summarize information pertaining to the universities and professional schools of university grade for the latest year reported:

Distribution of students in State universities, January 15, 1914.

Location.	Men.	Women.	Total.
Paris	15,111	2,197	17,308
Aix-Marseille	1,024	112	1,136
Besançon	214	46	257
Bordeaux	2,463	190	2,653
Caen	558	57	615
Clermont-Ferrand	206	38	244
Dijon	905	90	995
Grenoble	1,273	308	1,581
Lille	1,641	182	1,823
Lyon	2,985	198	3,183
Montpellier	1,900	220	2,120
Nancy	1,984	156	2,140
Poitiers	1,183	62	1,245
Rennes	1,491	72	1,563
Toulouse	2,744	182	2,986
Alger	1,280	78	1,358

Students in the schools of medicine and pharmacy external to the universities.

Location.	Medical students.			Pharmacy students.		
	Men.	Women.	Total.	Men.	Women.	Total.
Amiens	61	9	70	12	.....	12
Angers	77	1	78	8	1	9
Limoges	66	.....	66	10	.....	10
Nantes	290	15	305	40	3	43
Rheims	56	21	77	8	.....	8
Rouen	99	7	106	15	.....	15
Tours	65	9	74	17	.....	17
Total	714	62	776	110	4	114

Distribution of students by faculties.

Faculties.	Men students.			Women students.			Total.
	French.	Foreign.	Total.	French.	Foreign.	Total.	
Law	15,198	1,118	16,316	88	61	149	16,465
Medicine	6,765	899	7,664	400	469	869	8,533
Sciences	4,990	1,694	6,684	508	138	646	7,330
Letters	3,563	702	4,265	1,288	1,033	2,321	6,586
Pharmacy	1,275	18	1,293	44	.....	44	1,337
Total	31,791	4,431	36,222	2,328	1,701	4,029	40,251
Schools of medicine:					6		
Medicine	1,246	47	1,293	213		219	1,512
Pharmacy	266	2	268	6	.....	6	274
Grand total	33,303	4,480	37,783	2,547	1,707	4,254	42,037

Of the women students included in the total, more than half, i. e., 2,197 (1,120 French, 1,077 foreign) were at the University of Paris. Universities registering more than 100 women: Aix-Marseille, 112 (2 foreign); Bordeaux, 190 (174 French, 16 foreign); Grenoble, 308 (94 French, 214 foreign); Montpellier, 220 (77 French, 143 foreign); Nancy, 156 (53 French, 103 foreign); Toulouse, 182 (120 French, 62 foreign).

The following special schools of university rank are also under the minister of public instruction:

Collège de France (appropriation, statistics for 1912, $118,302); Museum of Natural History (appropriation, $251,858); Practical School of High Studies [École Pratique des Hautes Études] (State appropriation, $75,232); Superior Normal School (appropriation, $55,385), reunited to the University of Paris by a ministerial decree, November 1, 1904; School of Archives [École Nationale des Chartes] (appropriation, $16,500); School of Oriental Languages (appropriation, $35,050); French School of Archæology at Rome (appropriation, $16,000); French School at Athens (appropriation, $24,600); École Nationale des Beaux Arts (appropriation, $84,052).

The University of Paris is the central body in a group of higher institutions devoted to letters and science. The number of such schools under the minister of public instruction has been recently increased by institutions founded by private benefactions, namely, the École Libre des Sciences Politiques, the Collège Libre des Sciences Sociales, the École des Hautes Études Sociales, and the École de Journalisme, all founded within the decade by private benefactions. Paris is also the city of the most important private university in France, which includes a faculty of Catholic theology; a private faculty of Protestant theology was also established after the separation of church and state was accomplished. The liberal provision for higher education at the capital is increased by technical schools

under other ministries than that of public instruction. The chief of these are included in the table which follows:

Special schools at Paris under other ministries than of public instruction.

Institutions.	Number of students.	State and local appropriations.
		Francs.
École Centrale des Arts et Manufactures	727	600,000
Conservatoire National des Arts et Métiers, Paris	2,205	1,000,000
École des Hautes Études Commerciales	350	.....
Institut National Agronomique, Paris	182	224,600
École Polytechnique, Paris	440	1,300,000
École Supérieure de Guerre	250	.....
École Spéciale Militaire, St. Cyr (near Paris)	520	.....
École Nationale Supérieure des Mines, Paris	150	300,000
École Nationale des Ponts et Chaussées, Paris	150	242,320
École Coloniale	125	149,600
École Nationale des Beaux-Arts	2,000	433,800

PRIVATE AND MUNICIPAL ACTIVITIES.

The progress of elementary schools and of the higher institutions for liberal education in France depends largely upon legislative action, which is more or less involved with the political situation at any given time. There is, however, a wide field of educational endeavor that is independent of Government action. Special training for the industrial arts and for commercial business is promoted chiefly by private societies and individuals, aided by municipal authorities and often by the Government itself. Every city in France is a center of such activities, which date, practically, from the revolution of 1830, that gave the direction of public affairs to men distinguished for business enterprise and specially fitted to exploit the material resources of the country and to apply the resources of science and new motive powers to the use of industry and trade. The Polytechnic Association, formed in 1830, and the Philotechnic, which dates from 1848, made the education of the artisan classes their chief object. Both societies were in time recognized by special decree as of public utility, and they are still actively engaged in promoting the education of artisans and clerks. This movement has been greatly extended by the trade unions or syndicates of workmen which are not only centers of political and economic agitation, but of support for a high order of art and craft education. The combination of these various forces and their fruitful results are strikingly illustrated by the provision for industrial and commercial education in the city of Lyon, which is described in the following report:

COMMERCIAL AND TRADE TRAINING IN LYON.[1]

Industrial and mercantile education taught in day schools and in night schools has been perfected to a rare degree in the city of Lyon. Instruction in nearly every

[1] Report by Carl Bailey Hurst, American consul, Lyon, December, 1913.

department of technical and theoretical learning is given by professionals, and, where practicable, by men actually engaged in the particular vocations they teach. Paramount importance is naturally attached to industries peculiar to Lyon, such as various branches of the silk trade, but there are indeed few lines of wage-earning employment that are completely omitted. This is the more worthy of attention as the institutions in question are poor business investments from the standpoint of pecuniary return. In fact, many of the schools would be forced to close were it not for subsidies from the French Government, the local chamber of commerce, and the municipality, as well as gifts from successful graduates and other interested friends.

A local organization known as the Society for Professional Instruction, or in French Société d'Enseignement Professionnel, has united the various schools into what might be termed a large and loosely connected business university. This organization is partly municipal, and men of eminence are among its members of honor, beginning with the President of France. The number of students attending the courses of this society has ever since its foundation some 50 years ago averaged about 5,000, and, altogether, a quarter of a million students have received instruction. At present some 8,000 students are being instructed. Strikes tend to lower the attendance, though one might believe that during periods of idleness the workman would be willing to employ his time at these special schools. There are 84 courses for men, 83 for women, and 17 for men and women together. The average age of the students is 18, with a tendency ever since its foundation to decrease. A library of 6,400 volumes is at the disposal of the students and has branches in different parts of the city to facilitate distribution.

Considering the thoroughness of the instruction, the wide range of subjects, and the accessibility to the courses of study, it is extraordinary that the tuition fee for six months is only 3 francs ($0.579). Even this amount would not be required had the society not found that the attention and diligence of the student are enhanced by the payment of this minimum sum, thus eliminating any idea of charity. Men who are serving their term in the army are admitted at half this price. To aid these, as well as the others, who are nearly all wage earners during the day or students in other schools, the hours of instruction are from 7.30 to 10 p. m. and on Sunday mornings.

In stimulating class spirit and spurring the ambition of the individual students by considering their wants and aspirations before everything else, these schools are only equaled by the universities of the United States. Twenty students are sufficient to open a course, and of all the courses offered very few are not given. By vote of the students a number of courses can be held over the summer when the schools are ordinarily closed. Last year 56 courses were thus prolonged.

The budget of the Société d'Enseignement Professionnel is interesting in many ways. The following figures are for 1911–12, the last year for which statistics have been issued:

RECEIPTS.

Source.	Francs.	United States equivalent.
Subsidies from—		
City of Lyon	18,000.00	$3,474.00
Department of the Rhone	7,500.00	1,447.50
Chamber of commerce, Lyon	8,000.00	1,544.00
Ministry of commerce	8,500.00	1,640.50
Ministry of public instruction	3,500.00	675.50
Ministry of war	200.00	38.60
Fees	37,751.25	7,285.99
Interest on bonds	3,465.65	668.87
Gifts	15,440.80	2,980.07
Total	102,357.70	19,755.04

EXPENDITURES.

Source.	Francs.	United States equivalent.
Salaries	54,959.80	$10,607.24
Cost of courses	25,758.70	4,971.43
General expense	19,425.20	3,749.06
Prizes	3,280.30	633.10
Total	103,424.00	19,960.83

An occasional deficit is balanced from an available reserve fund of 68,224.50 francs ($13,167.33). During the past year the expenses were higher than they have ever been before, the cause assigned being the increased cost of living. At an expenditure of about 18 francs ($3.47) per caput, a year's instruction in an average of three thoroughly well-conducted courses is given to 6,000 or 7,000 students. This is done by lowering as much as possible all general expenses, while fully paying the teachers for their work. Many of the rooms and houses in which the courses are held are lent to the society by the municipality and the public institutions in Lyon. In certain courses the students are taken through factories and allowed minute examination of all processes. The governmental aerodrome is open to those who take the course on aviation. Local automobile works are glad to demonstrate their various methods to students seeking mechanical instruction. The printing presses of the daily press of Lyon, as well as shoe factories, chocolate factories, textile mills, and many other industrial establishments, contribute largely to practical training. No better commendation of these schools can be asked than the fact that nearly every business man in Lyon has been an attendant himself or is connected directly or indirectly with the institution. For a few of these courses—weaving, tailoring, foreign languages, for example—an extra fee, in some cases as high as 15 francs ($2.90), is asked. The society is conducted by an administrative council and a president named by the council. This body is composed of 32 members and is elected in certain general assemblies at which the attendance of all the members of the society, as well as of the professors, is requested. Each year one of these assemblies elects one-fourth of the council, and the work to be done during the year is prescribed, financial matters gone over, and all necessary projects carefully discussed. In this manner an institution is managed to which Lyon owes much of its prestige as a commercial and manufacturing city.

Highly useful among other institutions in Lyon is the so-called Martinière, founded and endowed by Gen. Claude Martin over a century ago. Since then various contributions of 1,000 to 2,500,000 francs ($193 to $482,500) have swelled the original fund. The annual running expenses last published amounted to 265,479.64 francs ($51,237.57). Under the authority of the French Government this school is administered by a commission of seven members. The mayor of Lyon is the president, and the members are chosen by the municipal council and appointed by the minister of commerce. The institution comprises a school for boys and one for girls, respectively called School for the Sciences and Industrial Arts of Lyon and Professional and Housework School of Lyon. Both schools are gratuitous, though the books and other necessary supplies for instruction must be furnished by the students. The price for these ranges between 6 and 12 francs ($1.16 and $2.32) per annum. The School for Sciences and Industrial Arts has from 500 to 600 students. It may be termed a secondary technical school, giving instruction in many branches of industry and commerce. The complete course takes four years. After the third year the students are divided into two distinct sections, commercial or industrial. The examinations at the end of the fourth year take place before a special jury. Diplomas of first and second class are given to the higher-grade students on leaving; the first-class diplomas of the indus-

trial section qualify holders for the admission examinations to the National Schools of Arts and Professions. The administration of the school and the director are active in obtaining situations for graduating students. The school year begins in October and lasts to the 14th of July. No one is admitted during the year or allowed to make two years of study in one year, except in special cases after absence on account of sickness, and only when sanctioned by the administrative council. A limited number of students whose parents so desire may take a fifth year of instruction, with permission of the directors. Students must be children of parents who are both French. Successful candidates are admitted directly into one of the four-year courses, according to the grade reached in the examinations, which are given twice a year, June and September, with permission, in case of failure in the first, to try again in the later examination. A gratuitous and voluntary course, preparatory for the examinations, is given in the summer months. Application for admission must be made by parents or their representatives.

There has been an average attendance of 300 students in the Professional and Housework School. The complete courses take three years, and students are only admitted after an examination. The general housework instruction is given to all students, but the professional teaching differs according to the classes. In the morning the students of the same year work together in the courses of general instruction. In the afternoon the sections are separated and put into a regular workshop, made to follow as nearly as possible actual conditions of the vocation chosen. There are three sections of professional instruction: Commerce, dressmaking and sewing, and embroidery. On entrance, students are asked to select one of these three branches. No one is allowed to pursue one of the general courses without at the same time attending one of the three sections of practical instruction. Upon completion of the third year the students are given diplomas, first and second class. Care is taken to secure good positions for successful graduates.

A colonial instruction school has been organized by the chamber of commerce and most of the courses are given in the commerce building. The object is to instruct students in all things absolutely necessary to life in French possessions over seas. After two years of attentive study, money prizes are awarded, which enable meritorious students to make trips to the colonies themselves. The chamber pledges itself to give such employment as it disposes of in the colonies. The candidates must pass a rigid entrance examination to attend these courses and a similarly searching examination on leaving. The entrance fee is returned to these students. A second group of students is authorized to take lessons in modern languages not given in the colonial course, such as English, Spanish, and Italian, at an outside school of languages, free of cost. Students under 16 are not admitted. Another group admitted without examination, but required to take at least two courses, have a right to a "certificate of assiduity" and to the free lessons at the language school, in case the first group does not take all the vacancies. The sum of 5 francs ($0.965) is asked as an entrance fee. Provision is made for a third group, "free listeners." The courses are nearly all held at night. They include tropical hygiene, history and geography of the colonies, Chinese (first year), Chinese (second year), sericulture, economics and legislation, manners and customs of the Far East, Arabic (first year), and Arabic (second year). It is in the colonial school that many of the future employees of the Government are prepared, and instruction in such subjects as sericulture tends to spread Lyon's home industry in silk to the colonies. This institution, of comparatively recent origin, is becoming more generally known, and is increasing steadily in numbers and importance, as the inducements to enter are more attractive every year.

The Superior School of Commerce at Lyon ranks high among the business schools of France. It is assisted by the municipality, the chamber of commerce, and local organizations. It is divided into two sections: (1) General commerce and banking, and (2) silk weaving and other textile industries. As this gives a very thorough busi-

ness instruction, the price of tuition is high, but does not exceed 910 francs ($175.63) a year. Students are taken as boarders at the price of 130 to 150 francs ($25.09 to $28.95) a month. The minimum age is 16. Foreign students are admitted at higher rates. To obtain a graduation certificate, an examination after a two years' course is necessary in the banking division, but not in silk weaving. Prizes, some as high as 2,500 francs ($482.50), are granted, for purposes of travel, to those who have shown themselves particularly deserving. Among the administrative careers it may be noted that half of the vacant places for vice consuls of France are open to graduates of the Superior Schools of Commerce. Employment is given in the administration bureaus of the ministries of commerce and labor, of finance, and of the colonies, and in other special governmental work. It also prepares for the examinations of the Bank of France and the Credit Foncier, and the commercial sections of mines and railways. The school takes great care in finding employment for its graduates, in which it is helped by the old graduates. In its entirely separate weaving department no admission examination is required. Theoretical and practical instruction is given to those who desire to belong to the silk, cotton, or linen industry in any of its branches. Here, as in all the other departments of this institution, most of the hours of the morning and of the afternoon are taken up with study. Weaving rooms with electric looms, a filature, and room for hand weaving are supplied among other aids to instruction. Students may choose from two lines of instruction; one is very complete, taking two years, comprising, outside of the theory and practice of weaving, useful accessory courses; the other requires only one year's study, but covers only the theory and practice of weaving.

An important addition to the facilities for commercial education offered by the city of Lyon was made last year when the University of Lyon, with the assistance of the chamber of commerce, established the Lyonnaise Institute of Economic and Political Sciences. The education given by the university has been largely shaped, up to the present time, to fit the needs of those studying for a professional career, and none of the courses in the university proper was deemed by its authorities to be of a sufficiently broad and general character to adapt itself to the different administrative, industrial, commercial, and financial careers open to the young man who wished to enter banking, insurance, the consular service, or political life. The Lyonnaise Institute of Economic and Political Sciences affords a short and complete commercial education. Students may take the required two years' course in the institute at the same time that they follow the regular university courses, if they so desire. It is not necessary, however, to be a student at the university or to have any certificates or diplomas in order to enter this commercial school. The institute is organized in two sections, economic and political, respectively, both of which are of two years' duration. Diplomas are given to those who are successful in passing the required examinations. The total cost of either course of this special practical training amounts to 380 francs ($73.34). A general idea of the studies covered by this institution may be had from the following subjects treated: Political economy; financial, industrial, and commercial law; economic and colonial geography; hygiene; diplomatic usage and modern history; international law; practical studies in accounting, banking, insurance, and the diplomatic and consular careers. To these may also be added the study of foreign languages. The courses are open to those coming from abroad as well as to French students.

A progressive spirit in public and private enterprise is everywhere manifest in Lyon in affording the best facilities for livelihood-producing education. The response shown by the students in attendance and application, whether in the day or night schools, in taking advantage of the exceptional opportunities is prompt and sure. The combined efforts of donors, teachers, and pupils have accordingly given results in the upward swing of local commerce and trade that may well command serious consideration.

SWITZERLAND.

INTRODUCTION.

Public education in Switzerland, as regards its administration and its operations, has been fully described in recent publications of this office.[1] It will suffice to recall here that it is provided for by cantonal systems developed in accordance with a clause of the federal constitution which requires every one of the 25 Cantons "to provide sufficient elementary education" free to all children without prejudice to "freedom of faith and conscience." With this restriction, every Canton has entire management of its schools. This independence is indicated by the varied organization of the several systems, some of which reflect French influences; others, German and Italian influences; but in all there is evident a common purpose, namely, to develop every order of ability among the people and to afford adequate preparation for every calling, professional or industrial, that may be exercised in the Republic.

The independent control of education thus guaranteed is jealously guarded by the local governments; at the same time the need of federal aid in this work has been recognized, and in 1902 an amendment to the constitution was authorized by popular vote which established the obligation of the Federal Government to subsidize primary schools. The right of cantonal control was reaffirmed in the amendment. The amount of the federal subsidy is fixed at the uniform rate of 60 centimes (12 cents) per capita of the population, excepting in eight Cantons, in which, by reason of special difficulties, the rate is increased by 20 centimes (4 cents). This subsidy, which in 1913 amounted to 2,000,000 francs ($386,000), has aided greatly in equalizing the school provision of the country.

The military system adopted in 1875 provided for recruit examinations, and these have fostered education by exciting keen rivalry among the Cantons in respect to the success of their youth in the tests.

THE FEDERAL POLYTECHNIC INSTITUTE.

The Polytechnic Institute at Zurich is the only federal institution in the Republic. It is one of the most important and highly equipped schools of that order in the world, and no expense is spared to keep its equipment fully up to date. In standards it is of the same grade as the universities, and a candidate for admission must have the certificat de maturité, that is, a diploma of a Swiss middle school, or submit to an examination. Students who do not desire to follow a prescribed course leading to the final certificate are admitted as

[1] Reports of the Commissioner of Education, 1908, Vol. I, ch. 8, pp. 275–281; 1912, Vol. I, ch. 20, pp. 535–538; 1913, Vol. I, ch. 35, pp. 808–811; Bulletin, 1913, No. 56, Some Suggestive Features of the Swiss School System.

irregular or special students, but even these must pass an entrance examination for admission to the specialized technical divisions. Many men of mature years and settled pursuits desire to avail themselves of the lecture and laboratory facilities of the institution, and for these, special arrangements are made. The institution comprises: School of architecture; engineering school; mechanico-technical school; school of chemical technology; agricultural and forestry division; and three general sections—(1) school of special teachers in mathematical and science subjects; (2) general philosophy and State economy division; (3) military science division.

The course of instruction in the several schools is arranged for three and one-half or four years; students who complete the course which they may select receive a leaving certificate showing the average mark obtained during the course, both in the obligatory subjects and in optional subjects, and attesting success in the final examination. The fees for the various courses are low, inscriptions and entrance fees together amounting to 20 francs ($4); the yearly school fees to 150 francs ($30); also fees for use of library and laboratory apparatus ranging from 5 francs ($1) to 75 francs ($15). The annual term comprises two semesters, one opening April 15 and the other October 15. The appropriation for the institute from the federal treasury, in 1913, was 1,170,810 francs ($234,162).

Summary of statistics of schools and higher institutions 1912–13.

Classification of institutions.	Number.	Pupils.
Kindergartens	1,033	53,043
Primary schools	4,470	551,250
Higher primary	683	58,530
Continuation schools (general and vocational)	.....	[1] 101,175
Normal schools	.....	3,703
Seminaries for girls	.....	2,812
Vocational schools (Berufschulen)	.....	13,997
Secondary schools	41	10,167
Federal Polytechnic Institute	1	2,549
Universities	7	9,230

[1] Not including 10,738 young men in the classes maintained for recruits.

CHAPTER XXXIV.

EDUCATION IN CENTRAL EUROPE.

CONTENTS.—Germany: Educational activities in 1914—Completeness of the school provision—Current criticisms—Continuation schools—Teacher training—The teachers' meeting at Kiel—The secondary schools—Higher education. Austria-Hungary: Systems of general education—Illiteracy—Statistics—Industrial and technical training in Austria—Apprentice schools of Hungary—Trade and technical schools—Commercial education in Hungary.

GERMANY.

EDUCATIONAL ACTIVITIES, 1914.

The opening of the year 1914 was marked in Germany by public ceremonies and festivities commemorating a century of national life and progress. In these activities the educational world, through its numerous associations and journals, bore a prominent part, reviewing those achievements which had given the nation a sense of leadership in education and in science. This position had been freely conceded by other nations, as indicated by commissions recently sent to Germany from the United States, from Canada, Australia, and Sweden, to study the conduct of schools and higher institutions, their administration and the secrets of their efficiency. In the early summer of the current year a company of teachers from the United States sailed for Germany to study the system which has revolutionized the school system of Munich; experts sent in 1913, by the London County Council, to examine trade and technical education on the Continent, recognized in the German system "the long view" which must eventually lead that nation "to a foremost place as an industrial world power"; France has repeatedly paid tribute to the excellence of scientific education in Germany, and at the beginning of the year M. Viviani, in his brief term as minister of public instruction, used the example of the University of Leipzig in support of his plea for the endowment of a chair of Arabic in the University of Paris, as a measure both of commercial and diplomatic wisdom.

COMPLETENESS OF THE SCHOOL PROVISION.

Abundant proof of the completeness of the school provision in Germany and of the vigor with which educational affairs are administered is furnished by the latest statistical summary, which brings

the record down to 1912, showing progress by half decades from 1901 to 1911, inclusive. In a nation where educational provision is fully adequate to the demands and compulsory education laws are universal and vigorously enforced, more frequent surveys are not needed. It is certain that under normal conditions school places will be found for all children, temporary provision being made wherever the growth of population makes it necessary. On the basis of increase in the five years 1906 to 1911, the elementary and middle schools of Germany, corresponding to the public schools of the United States, enrolled in 1914 about 11,100,000 pupils, which was a little more than 16 per cent of the population. As the compulsory provisions cover the full period of the elementary school, it follows that this large proportion of the people receive eight, or at least seven, years' schooling. The compulsory provision has been generally extended to attendance upon continuation schools; hence additional training is insured for all boys and a large proportion of girls for brief terms extending over two or three years. The ordinary schools and the continuation schools are invariably in charge of trained teachers. In this manner the doctrine of efficiency is applied to the child population.

Above and apart from the schools for the people (Volksschulen and Mittelschulen) are the Gymnasia and Realschulen leading up to the universities and highest technical schools. These form together a complete system of liberal education and specialized training for the learned and technical professions. The preeminence of Germany in educational matters has been chiefly due to the splendid organization of all divisions of this system. This feature has not, however, obscured its weak points, which are admitted by the Germans themselves.

CURRENT CRITICISMS.

The growth of the Social Democratic Party has brought the elementary school, the Volksschule, or the school of the people, under severe criticism. Complaint is made of the overcrowding, of the division of the schools by social classes and sectarian creeds, and the exclusion of elementary teachers from the cultural schools. Detailed statistics reveal an alarming proportion of retarded pupils. This is charged both to overcrowding and to the want of an understanding of children's abilities or needs. Official reports show that in the largest cities of Prussia, where organization is at its best, only 45 per cent of the children in the elementary schools reach the eighth grade; of the remainder many never get beyond the fourth grade. Leipzig boasts that the average size of classes in its schools has been reduced to 40 pupils; nevertheless even in Leipzig 25 per cent do not reach the highest class. The question is raised whether this is a deficiency

in the children or in the instruction; it is agitated by the associations of teachers, and is the subject of solicitude on the part of the educational authorities as shown by the large numbers of auxiliary teachers employed, and the formation of special classes to assist backward pupils. Auxiliary classes (Hilfsklassen) to the number of 1,800, with 40,000 pupils, are reported in 300 cities.

The advocates of the "Einheit" school, a common elementary school for all children, based on the doctrine of equal regard for both their active powers and receptive attitudes, see in it the one agent that may correct all serious evils of the present system; but schools of this type increase in numbers slowly, so that they do not affect the general situation. The most important movement in popular education pertains to the increase and more varied adaptations of continuation schools. These are either general schools for making up deficiencies in the elementary branches or they are trade schools intended to increase the skill and earning capacity of their pupils. The latter react upon the elementary schools both by reason of their sifting process and their industrial bearings.

CONTINUATION SCHOOLS.

School legislation moves very slowly in the German States, and new laws are seldom enacted, but ministerial orders and regulations issued by local authorities have all the force of law. The extension of compulsory attendance requirements to continuation schools and the training of teachers for those schools have been the subjects of the most important recent regulations. The ministerial order for Prussia authorizing the larger towns to adopt by-laws making attendance upon continuation schools compulsory was extended last year to smaller towns and rural districts in seven provinces of the Kingdom. A measure was also adopted in Hamburg making attendance upon industrial continuation schools compulsory for all males under 18 years of age and above the legal school age.

The minister of commerce, who is charged in Prussia with the interests of continuation schools, has recently issued a new plan of study for them which distinguishes more carefully between the schools for general instruction and the industrial schools and defines more exactly the character of the latter.

The new school regulations for Bavaria, which went into effect January 1 of the present year, make decided changes in the school classification. They are introduced by provisions of the school law with respect to compulsory education as follows: "The period of compulsory attendance at schools begins at the end of the sixth year and lasts 10 years. Of these, in the ordinary way, 7 are spent at the elementary school and 3 at the continuation school." In the latter clause the words "elementary" and "continuation" are substituted

for "week-day" and "Sunday" in the original law. The expression "in the ordinary way" is understood to exclude those boys who are attending a higher school which prepares for the universities or technical high schools.

The new regulations divide the continuation schools into general continuation schools (Volksfortbildungsschule) and vocational continuation schools (Berufsfortbildungsschule). A special request must be made to the responsible minister for permission to establish a school of the latter type. It must be shown that there is a sufficient number of young people needing the school before the request can be granted. Attention is called to the fact that the number of hours required in the old Sunday schools, i. e., 60 to 80 in a year, is increased to 140 under the new arrangements. Objections have arisen from the fact that the general continuation school is made an annex to the elementary school, which brings it under clerical control. In Munich this difficulty will not be of much importance, as under Dr. Kerschensteiner's direction a comprehensive system of municipal vocational schools already exists.

With regard to special features of the continuation schools of Munich, a recent report says:

> The particular contribution which Munich has made to the development of the continuation school movement consists in adding to the lists of theoretical and academic subjects a course in actual shop practice within the school itself, instead of turning over to the masters the entire work of instruction in the mechanics of their trade. In the opinion of the Munich authorities this actual technical training within the school is necessary not only to give the apprentices a more comprehensive view of their trade than the masters are likely to give, but also to add zest and significance to the instruction in the theoretical subjects. The ranks of the journeymen and the masters in industry are recruited from apprentice boys of the special industrial continuation schools. There is for these boys, however, no opening into the higher institutions of learning, nor into the learned professions.
>
> Girls who do not at the age of 10 elect to go into a middle school or at the age of 13 into a preparatory school leading to a teachers' seminary must attend the elementary school until the age of 14. If they do not then elect to enter one of the voluntary schools for training in commercial or industrial subjects or in household economics, they are obliged to attend a continuation school for theoretical instruction for three hours a week until they are 16 years old. In all schools, whether for boys or girls, instruction in religion is required of all pupils to the age of 16.
>
> The authorities of Munich have made plans for a considerable extension of the continuation school work for girls. As soon as funds are available the entire system will be put upon a basis similar to that already established for boys. Upon leaving the elementary school at the age of 14, girls will then be obliged to elect whether they will attend a commercial, an industrial, or a household economics course.
>
> The boys who go through the elementary and the continuation schools are now barred, except in unusual cases, from gaining the privilege of the one-year military service and also from securing these advantages of a higher education which are so freely open to the boys from the middle schools. It is apparent that there is a great social barrier between the two classes of boys. To break down this barrier and to open the door of opportunity to all boys alike, without reference to the wealth or the

social prestige of their parents, is the immediate aim of Dr. Kerschensteiner, the Munich superintendent, and of other other men of like mind. They are proposing the establishment of a school for industrial education where boys may qualify for the one-year military privilege, where they may receive a kind of training that will fit them for efficient work in the industrial field, and where they will be accorded as much social respect as is accorded to the boys of any other kind of school. Furthermore, it is hoped that this type of school may ultimately be allowed to send its boys into the institutions for the higher education. According to the best German opinion, if such a school can be established, it will help to improve social conditions in several ways, perhaps most of all by attracting to industry many boys who now enter learned professions on account of the superior esteem in which these professions are held.[1]

Munich has at present 54 special continuation courses (Fachschulen) for boys, each representing a separate trade, and 11 continuation schools for general education centered around manual work. The number of pupils in these schools during the last year was 10,916, instructed in 428 classes.

Fees charged in the classes are very low, the maximum for a Bavarian being about 50 cents a month, for which he may attend 10 or more hours each week. The cost of the organization of the continuation schools in Munich is estimated in round numbers at $400,000, including cost of buildings.

Although compulsion has been found necessary, endeavors are made to win the employers to the support of the schools by an appeal to their own interest. Periodical displays of the work are made which enable employers to see the importance of the instruction, and expert teachers are employed, who command their confidence. It is advised that every trade school shall have a directive board on which employers shall be represented, and they are also urged to make use of the vocational bureaus in choosing their young employees. The youth in training realizes the importance of the opportunity, because he is constantly reminded that he can not secure recognition as a qualified workman until he has submitted a sample of his work to be passed upon by a committee of the masterworkmen of the trade which he intends to enter. While the trade school separates the youth of the laboring classes into industrial groups, the sense of their community relations is developed by the lessons in citizenship (Bürgerkunde) which are common to all the schools. Thus every effort is put forth to establish close relations between the continuation trade schools and the living conditions into which the young workmen must enter.

The continuation schools of Munich are in organic relation with the elementary schools; in Berlin they have been established independently, and the compulsory principle was not applied to them until 1906. One marked distinction between the trade continuation schools of the two cities pertains to the practical work. The trade schools in Munich are all equipped with workshops; whereas in Berlin

[1] From report by Dr. Gosling, of Cincinnati, member of the company sent from the United States to study the schools of Munich.

the trade training has been left to the employers, and the continuation schools have been limited to theoretic instruction. Experience indicates the superiority of the Munich system, and a movement for supplying the trade schools of Berlin with workshops has been started by the employers themselves. It is insisted, however, that distinction must be preserved between the school workshop (Schulwerkstatt) and the regular trade shop (Lehrwerkstatt).

Berlin, with its 2,171,000 inhabitants (exclusive of the suburbs), maintains 10 continuation schools under the compulsory attendance law. These comprise 978 classes, with a total attendance in 1912 of 34,319 pupils. Of the number, 355 classes with 13,725 pupils were for unskilled workers. The annual expenditure for these schools amounts to about $200,000, not including payment of loans and interest. The entire sum is supplied by the city.

In 1912 there were 26,621 continuation schools in the German Empire, with an attendance of 1,342,825 pupils. Of the total number of schools, there were 16,535, with an enrollment of 591,516 (350,238 boys, 241,278 girls) for general instruction. The remaining number were specialized trade schools, including 461 industrial schools for girls, with 32,406 pupils.

TEACHER TRAINING.

The desire for university opportunities on the part of teachers of elementary schools has gained official recognition in Saxony and in Bavaria. This success gives new impetus to the efforts of Prussian teachers in the same direction. They urge that the severe training required for admission to the position of teacher is not inferior in discipline to the Gymnasium course, and that at the same time it prepares student teachers for higher cultural studies pertaining to their profession. Their efforts are strengthened by the purpose of political and socialistic leaders to break down caste distinctions in the Kingdom. The question of the professional training of teachers, therefore, is related to one of the deepest movements of the age.

The main requirements for elementary teachers are the same in all the German States. They comprise a preparatory course of two or three years, to which the pupil is admitted at 14 or 15 years of age, and which may be given in a separate school, as in Prussia, or in a department of the training seminary, as in Saxony. The student enters the seminary (normal school) at the age of 17 for three years of intensive work covering the history and theory of pedagogy, combined with practical teaching under the critical observation of the seminary director or a member of the faculty. Periodical examinations determine the student's continuance in the seminary, and at the end of three years he is subject to a final examination which entitles him to a provisional certificate. Thus equipped, he begins his career

usually in an ungraded country school; after two to five years' experience he is admitted to a second official examination. Its object is to ascertain whether or not the provisional teacher has acquired practical skill, and a deeper knowledge of educational principles. It gives the candidate also a chance to be tested in any subjects in which he was weak at the previous examination and thus to improve his position. This second examination comprises the following:

(A) Written:
  (1) A subject of school management.
  (2) A religious or ethical subject.
  (3) A secular subject of instruction.
(B) Practical teaching of a selected subject.
(C) Oral examination in history, theory, and methods of education.

This examination opens the way to higher posts in the elementary schools and to the position of assistant teacher in a Mittelschule.

It follows that during the probationary term of service the German teacher has a great incentive to intellectual and professional development, and in every German State agencies have been provided for meeting this need. District libraries, educational museums, classes maintained by teachers' associations, and vacation courses at the universities, all conduce to this end. This private study during the pressure of work increases the discontent of teachers at their exclusion from the universities, which would enable them to secure the coveted prize of a diploma. The special courses for teachers held at the universities carry no sanction of this kind; even the privileges accorded at Leipzig and the universities of Bavaria are only within the reach of graduates from the normal schools who have passed their probationary term as teachers and gained distinction in all their examinations. Practically the elementary school and the elementary school teacher do not come within the currents of influence that flow from the higher institutions.

THE GERMAN TEACHERS' MEETING AT KIEL.

The annual meeting of the federated associations of German teachers (Deutsche Lehrerversammlung) was held in the city of Kiel, at Whitsuntide, 1914.

The reported speeches of Dr. Seyfert are particularly interesting to Americans, because of their democratic tone, and because of their bearing upon the views of Dr. Kerschensteiner, which have had such a wide influence in the United States. Having come up through the common schools of his country to the position of seminary director, the former is now known as the strongest exponent, in the German Teachers' Association, of the idea of making pedagogy an independent science.

Dr. Seyfert began his discussion by asking the question: "Is there such a thing as a science of pedagogy?" The Bavarian University, in 1908, had declared, he said, that there is no such thing as an isolated science of pedagogy. This not only expresses the sentiment of German universities as a whole, said the speaker, but influences German scholarship to such an extent that those who are educated at the universities hear and know little about pedagogy. Furthermore, this sentiment has hitherto kept the universities from establishing chairs of pedagogy in connection with their other work.

The day demands a deepening and widening of the education of the teacher, said Dr. Seyfert. Summing up this phase of the subject he said:

> The German Teachers' Association and the science of pedagogy go hand in hand. Science is not a child to be left to stand alone. Science demands life; it works in connection with life and into life. * * * Pedagogy as a science must have life through which to realize itself. The German Teachers' Association wishes to be scientific in all it does, and as a consequence asks to have its work put where it belongs. It would class pedagogy as a science and would place in our universities chairs of pedagogy.

Dr. Seyfert combated the idea that the deepening and widening of the culture of teachers would cause them to lose sympathy with the common people. "If it is sarcastically asked," says Dr. Seyfert, "what has science to do with teaching children their A B C's, or beating into their heads the multiplication tables?" the reply is that Germany has nothing to fear because its common-school teachers become cultured. He declared:

> What I contend for is that when the young teacher comes from the seminary he will take with him the capacity for working scientifically. Full scientific knowledge we can not give him; but we can give him the trend and spirit of scientific work, so that he can utilize it in all he does. Such a person, if forced to work without further help from any institution of learning, can now do so to advantage by using libraries, the scientific courses maintained by this association, and by taking advantage of our teachers' institutes.

After the speech by Dr. Seyfert the association passed, unanimously, the following resolutions:

> The assembly of German teachers maintains the necessity of regarding the science of pedagogy as the center of the education of the teacher; and that pedagogy *as an independent science* should be known and acknowledged; furthermore, that pedagogic study be made accessible to teachers of all schools.
>
> The assembly regards the purpose of the German teachers' association to be—
>
> 1. An aid in pedagogic inquiry and in publishing the results of the work of teachers.
>
> 2. To suggest and to organize pedagogic scientific work among the teachers themselves.
>
> The aim of pedagogic efforts in the German Teachers' Association should not be to form a union of persons of like pedagogic sympathies and convictions, but to lead to the participation of all the members of the association in pedagogic life.

THE SECONDARY SCHOOLS.

The German system of public instruction owes its distinction mainly to the secondary schools, in which the directive classes of the nation are educated. The conviction, however, has been growing that the course of study and the methods characteristic of these schools do not accord with sound pedagogic principles and that they are detrimental to the health of the pupils. Complaint is made of the deadening "barracklike" drill, overcrowded programs, and the excessive emphasis upon classical studies. Notwithstanding the solid strength of the system, two innovations have resisted opposition and gained Government recognition.

The normal secondary schools are of three types—the Gymnasium, the Realgymnasium, and the Oberrealschule—all of which are organized in nine classes covering the ages 9 to 18 years. The three types are in a sense equal, as their graduates are admitted to the universities on the same terms, excepting that those from the Oberrealschule are not prepared for the faculties of theology and philology. The "reform schools" differ from the normal types in respect to the language programs, as will be seen from the following statements:

In the Gymnasium the pupils are required to take four foreign languages: Latin, nine years; French, seven years; Greek, six years; Hebrew or English, three years.

In the Realgymnasium three foreign languages are required: Latin, nine years; French, seven years; and English, six years.

In the Oberrealschule two foreign languages are required: French, nine years, and English, six years.

The "reformed Gymnasia" follow either the "Frankfurter system" or the "Altonaer system." The distinction between the two is not great. Both differ from the normal Gymnasia in the plan of language studies. They start with French in the Sexta or lowest class. In the Frankfurter system, at Untertertia, or lower third class, a division takes place into Gymnasium and Realgymnasium. For the former, Latin begins at Untertertia and Greek at Untersecunda (lower second). For the Realgymnasium, Latin also begins at Untertertia and English takes the place of Greek in Untersecunda.

In the Altonaer system French begins at Sexta and English at Quarta. At Untertertia there is a division into the Realgymnasium with Latin and the Oberrealschule with French and English continued throughout the remaining five years.

These reform secondary schools have all the advantages of the normal types. At the end of the sixth year their pupils receive the certificate which allows the possessor to serve as an "Einjährig-Freiwilliger," that is, as a volunteer for one year in the troop which he chooses, and at the completion of the nine years' course the pupil

is admitted to the "Abiturienten-Examen," which admits to the universities.

The secondary schools which have only a six years' course also carry for their pupils the advantage of the one-year volunteer service.

The latest statistics, which pertain to the year 1911, give a total of 306,426 students in the three classes of secondary schools having the full course of nine years. Of this total, 53 per cent were in the Gymnasia, or classical schools, and 47 per cent in the Realschulen. In the schools having only a course of six years a very large proportion of students, viz, 92 per cent, were in the two classes of Realschulen.

A very recent analysis of the statistics gives the number of the reform institutions as 184; of these, 158 are found in the several classes of Realschulen, which number altogether 1,082 institutions; of the Gymnasia and Progymnasia, numbering 605, only 26 follow the reform programs.[1]

SECONDARY EDUCATION FOR GIRLS.

Secondary education for girls continues to excite earnest discussion in Germany, and more particularly in Prussia, where girls are not admitted to the secondary schools for boys, as they are in several German States. The higher schools for girls in Prussia, as organized under the regulations of 1908, do not offer the same courses of instruction as the secondary schools for boys (Gymnasia and Realschulen), or, in other words, they do not prepare directly for admission to the universities which were opened to women in 1908, the year of the so-called reform of the higher girls' schools.

Under the existing regulations the course of study for the "higher girls' school" proper covers 10 years, of which 3 years are preparatory. After completing the full course, the student may enter upon any one of three courses known as Studienstalten, which lead to the Reifeprüfung. Thus after 13 years' study, including the preparatory course, pursued under great difficulties, as against the 12 years covered by the Vorschule and the Gymnasium for boys, a young woman may finish preparation for the university. Dissatisfaction with the condition is increased by the advanced requirements for the teachers of the higher girls' schools. The associations of women wage a vigorous campaign against these unjust discriminations, in which they are supported by liberal-minded men. It is generally admitted that the reform of the higher girls' school started by the regulations of 1908 must end in giving the women of Prussia equal scholastic opportunities with the men.

[1] See Kommunals-Jahrbuch, 1913–14, p. 362.

HIGHER EDUCATION.

As this chapter goes to press announcement is received of the opening ceremony of the new university at Frankfort on the Main, which took place October 18, 1914. Although this event is later than the period covered by the present survey, it is the culmination of plans which took definite shape in 1912 and were so far advanced at the beginning of the current year that it was expected students would be admitted for the summer term.

The total registration at the 121 German universities in the summer semester of 1913 was 60,346 and at the 8 higher technical schools 16,418 students.

AUSTRIA-HUNGARY.

SYSTEM OF GENERAL EDUCATION.

The educational system of the two divisions of the Austro-Hungarian Monarchy, although distinct from each other, present many similar features. In both divisions of the country the progress of education, particularly as related to the masses of the people, is too involved with political and racial conditions for the full application of the principles embodied in the school law. The standards of secondary and university education are practically the same as those of Germany, and systems of industrial and technical education are well developed in both divisions of the monarchy.

ILLITERACY.

Elementary education is compulsory by law in the two divisions of the dual monarchy. Nevertheless the degree of illiteracy is high in both. In Austria this appears to be largely the result of lax administration, and efforts have recently been made to increase school attendance in this Empire, or rather to correct the evils of irregular attendance and early withdrawal. In respect to the mere matter of school enrollment, the record is not bad, as compared with other countries. Thus in 1911 the enrollment in elementary schools was very nearly 16 per cent (15.9) of the population and 92 per cent of the children of school age (6 to 14). The ratio of illiterates to the population above 10 years of age ranges, however, from 60 in every 1,000 inhabitants in the principal Provinces up to 736 in 1,000, reported for Dalmatia. These conditions are attributed to the indifference of local authorities, and the demand has become urgent that the State shall establish a vigorous supervision over elementary schools and at the same time assist the poorer districts by large appropriations for support.

As regards Hungary, the charge is made that the Magyars, the dominant race, while freely supporting higher education, are indifferent to the education of the people, and further, that they exclude other races in the Kingdom from their full share in the educational provisions. The latter charge is apparently confirmed by official statistics. For instance, in 1911 there were 59 Magyar students in secondary schools (Gymnasia and Realschulen) for every 10,000 of that race. On the contrary the Roumanians, who in their own Kingdom are ambitious scholars, had only 14 students in the secondary schools for every 10,000 of their people. Equal disparity is noticeable in other secondary and higher institutions, not only as regards the Roumanians, but all non-Magyar races within the borders of the Kingdom.

Without considering further the bearing of these statistics, it is significant that the Hungarian census for 1910 gave 43.6 per cent of the population as illiterate. It should, however, be observed that the ratio had declined below that shown in the two preceding censuses; namely, 47.7 per cent, census of 1900; 54.5 per cent, census of 1890.

STATISTICS.

From the statistics given below, it appears that the enrollment in elementary schools in Austria for the latest year, 1911–12, was equivalent to 16 per cent of the population (28,324,940, census of 1910). The corresponding statistics for Hungary give an enrollment in primary schools in 1911–12 of 14 per cent of the population (20,886,487, census of 1910).

Statistics of primary and secondary schools in Austria, 1911–12.

Classes of schools.	Schools.	Teachers.	Enrollment.
Primary	24,226	110,607	4,553,734
Training seminaries for teachers:			
Men	74		12,678
Women	74		10,004
Gymnasia[1]	343		108,838
Realschulen	148		49,151

[1] Including 32 secondary schools for girls, with 4,797 pupils.

Higher education.—In the winter semester of 1913–14 the 8 universities of Austria registered 31,646 students, including 2,701 women. There are also 49 theological colleges belonging to the different denominations, with a registration of 1,945 students.

The system of technical education includes 8 higher institutions maintained by the Government, with a total registration (1913–14) of 12,130 students. There are also above 6,000 specialized technical institutes, with an annual attendance of about 410,000 students.

Statistical summary of primary and secondary schools in Hungary.

Classes of schools.	1910–11			1911–12		
	Schools.	Teachers.	Enrollment.	Schools.	Teachers.	Enrollment.
Primary	19,339	47,487	2,938,091	19,521	49,150	2,969,444
Training colleges for teachers	96	1,201	10,271	96	1,229	10,340
Gymnasia	187	3,882	63,544	192	3,971	69,716
Realschulen	42	1,020	14,072	43	1,044	14,938

Statistics of higher education in Hungary.

Institutions.	1911–12		1912–13	
	Professors and assistants.	Students.	Professors and assistants.	Students.
Universities:				
Budapest	422	6,858	416	6,962
Kolozsvar	139	2,406	137	2,157
Agram (Crotia)	91	1,189	97	1,096
Debreczen [1]	.....	273	.....	284
Pozsony [1]	.....	224	.....	220
Higher technical school (Budapest)	.....	.....	169	1,868

[1] Organized in 1912.

INDUSTRIAL AND TECHNICAL TRAINING IN AUSTRIA.

CENTRAL AGENCIES.

Austria was one of the first countries in Europe to recognize the importance of the higher orders of technical instruction, the Royal Technical High School, established at Prague in 1806, and that of Vienna, established in 1815, being the oldest institutions of the class in Central Europe, and on the entire Continent preceded only by the Conservatoire des Arts et Métiers, created at Paris in 1794. The organization of "Realschulen," or secondary schools having special reference to the preparation of young men for practical life, had been already authorized (1804); so that Austria was committed to the movement of modern education early in the nineteenth century. The downward extension of the movement, as measured by the number of secondary technical schools and industrial continuation schools, has been somewhat slower than in the neighboring nations of Germany and Switzerland. The difference is partly due to the more highly centralized control, with less local initiative, characteristic of Austria, and partly to the differences in race and language and industrial developments in different parts of the Empire. Under the system of centralized control, however, some important agencies have developed which are exceedingly helpful to all communities and to schools which provide either technical or industrial training.

The ministry of public works, which has charge of industrial schools, maintains a bureau of school apparatus and equipments which in its practical effects is the most important of the central agencies.

Experts are employed by the bureau to examine all materials submitted and test their utility for school use. The bureau itself also manufactures new apparatus, stimulates educational institutions to do the same by offering prizes for the approved products, provides traveling exhibits of apparatus and supplies, and organizes lecture courses on industrial subjects.

School supplies are obtained for the bureau by purchase of models submitted for prizes and by the manufacture carried on at the bureau and in the workshops or studios of the State schools. The latter are under obligation to cooperate in the production of material for the bureau, so far as may be possible without interfering with their ordinary work.

The activities of the bureau of apparatus and supplies are specialized through subdivisions as follows: Art-trades department; textile department; department for continuation schools; chemical-technical department; and an institution for teaching and investigating the graphic arts.

The remaining central institutions include: The Austrian Museum of Art and Industry, with two affiliated industrial art schools; the Technological Industrial Museum, noted for the admirable classification of its specialized collections; and a group of institutions for teaching and research pertaining to leading industries—leather industry, art embroidery, lace work, basketmaking, and patternmaking.

All the central institutions furnish models that are loaned upon application to State schools in different parts of the country, and the visits of teachers to these institutions is encouraged often by appropriations to defray their expenses.

STATE INDUSTRIAL SCHOOLS.

The State industrial schools (Staatsgewerbeschulen) were created by decree of 1875. They comprise general industrial schools (Die allgemeine gewerbliche Schulen) and special schools for certain industries (Fachschulen). They number at present 16, of which the principal are 2 at Vienna and 1 at each of the following cities: Salzburg, Gratz, Trieste, Innsbruck, and Prague. The school at Gratz, which may be taken as typical, has about 40 teachers and 300 students. It comprises—

I. School for overseers (Werkmeisterschule), with an industrial construction division having special schools for building industries, in the narrow sense, for carpenters, stonemasons, joiners, and for ironworkers, and also art-industrial division, with special schools, as follows:
   (*a*) School for decorative painters.
   (*b*) School for ceramics, for modelers, for pottery painting, etc.
   (*c*) School for wood industries, turners, cabinetmakers, wood carvers, etc.
   (*d*) For metal industries, chasers, engravers, decorative ironworkers.

II. Special course for art embroidery.
(The preceding are all both summer and winter subjects.)

III. Drawing and modeling, in summer only.

APPRENTICE SCHOOLS OF HUNGARY.

The system of industrial and technical education in Hungary comprises apprentice schools under the department of education and higher technical or trade schools under the department of commerce.

The apprentice schools are either general or special in character. An important feature of the former is the course of "readings" intended to give the pupil knowledge of his own and other countries and to impart a sense of his duties and his relation to his environment. The scope of the "readings" is shown by the following topics from the official syllabus: "Industrial life; geography, Hungarian history and legislation; public hygiene; political economy; physics; chemistry and technology. The character of these "readings" may be illustrated by the full outline under industrial life, which is as follows:

Extracts from the lives of celebrated manufacturers, exhibiting the qualities demanded in a manufacturer (love of work, exactitude, honesty, sobriety, the spirit of economy, purity of morals, respect for the law, patriotism, a conciliatory character, the duties of the apprentice toward his master or guardian, rules of good behavior in the family, the school, and in public life).

For each of the three years of the course the instructions emphasize the importance of selections from Hungarian literature bearing on the historical and geographical subjects.

The remaining subjects of instruction in the apprentice schools pertain to the industries for which the students are preparing. The schools are maintained by a special tax, limited to 2 per cent of the school tax, and where this is not enough the deficiency is made good by State subsidies, disbursed by the minister of education. The school sessions cover seven hours a week, of which three fall on Sunday; trade apprentices are obliged to attend, and factory proprietors and masters of shops, etc., are liable to fines of 50 florins ($22) for failure to send their apprentices to these schools.

TRADE AND TECHNICAL SCHOOLS.

The trade and technical schools are under the general direction of the ministry of commerce, and are distinguished from the apprentice schools by a higher order of technical training and the higher attainment of their teachers. These must be graduates from the division of the polytechnic school—i. e., the engineering department, the department of architecture, or the department of practical chemistry, corresponding to the speciality over which the teacher may be placed.

Many of the teachers are sent to schools in other countries for at least a year at the expense of the State or else they enter the univer-

sity for studies relating to their specialties. In general, each teacher has three or four years of academic work, supplemented by a year of travel in foreign lands.

The trade and technical schools pertain to many industries, including those for women, and hence differ widely with respect to the technical courses which they offer, although all include the same general instruction. This comprises—

Hungarian, and its form in business and industry; arithmetic and geometry, with their applications; physics and chemistry, treated in a very general way, but experimentally illustrated; writing; industrial accountancy, dealing with the principles of cost, sale, profit and loss systems of bookkeeping as applied to industries.

COMMERCIAL EDUCATION.

Commercial education has received every encouragement in Hungary, which depends largely for its progress upon inland trade. The constant activity in this direction is illustrated by recent efforts to extend trade to the new Kingdom of Albania. For this purpose an exposition of articles manufactured in Hungary was opened at Valona, Albania, under the charge of the Hungarian Commercial Museum. In connection with the display, small booklets were distributed describing, in the French and Albanian languages, all the samples, representing 220 different manufactures. The importance attached to this enterprise was indicated by the fact that Dr. Julius Kovacs, the director of the commercial museum, personally superintended the arrangements of the exposition in Albania. An excursion of the leading business men of Albania to Budapest was also arranged, and every effort made to induce them to establish close relations with Hungarian manufacturers.[1]

[1] See report by William Coffin, American consul general, Budapest, in Daily Consular and Trade Reports, May 18, 1914.

CHAPTER XXXV.

EDUCATION IN THE KINGDOMS OF SOUTHERN EUROPE.

CONTENTS.—Spain: Educational movements—Portugal—Italy: Educational progress; rural schools for the Roman Campagna; secondary and higher education—Greece—Balkan nations—Turkey.

EDUCATIONAL MOVEMENTS IN SPAIN.

The most stirring events in the recent history of Spain have arisen from the educational conflicts between progressive leaders and their political opponents. The latter have been weakened in the contest by the pressure of industrial needs, and gradually Government support has been secured for reforms in the organization and conduct of primary schools throughout the Kingdom. The important feature of the new policies is the larger control of primary education assumed by the State. This action began by the creation of a ministry of education in 1900; in 1902 the State took over the payment of teachers' salaries, and provided also for the erection of school buildings in cities or districts neglecting this duty; in 1909 a law was passed increasing the authority of the State in respect to the appointment of teachers and the internal conduct of schools. Finally, in 1911, a decree was passed creating the office of general director of primary education in the ministry. This office was committed to Dr. Altamira, widely known by his historic writings and his practical conduct of a university extension movement in the interests of artisans and laborers.

The recent withdrawal of Señor Altamira from the directorship of primary education has been the occasion for a review of the work accomplished during the three years of his administration. The interests of the teachers were his first concern, and he was successful in securing for them a general increase in salaries, more secure tenure, and promotion at fixed intervals. At the same time, he raised the standards of the service by the reorganization of the normal school programs, the creation of special courses of instruction for teachers in the service, and traveling scholarships for the purpose of enabling teachers to profit by tours of observation in foreign countries. Under his administration, the service of school inspection was placed on a higher plane as regards the qualifications of candidates, and a corps of inspectresses added to the force. Sixty circulating libraries for

the use of teachers were established, and finally primary education was made free by the suppression of school fees. The efforts of Dr. Altamira extended beyond the strictly educational features of the service; medical school inspection was extended and placed upon a firmer basis and provision made for school colonies for the benefit of delicate children.

The reforms authorized by law have necessitated substantial increase in the public appropriation for primary education. In 1909 the budget of the ministry of public instruction amounted to 52,351,374 pesetas ($10,103,815); in 1911 this total was increased by 6,173,212 pesetas ($1,191,430), and by successive increases the budget for 1913 reached the total of 62,711,373.06 pesetas ($12,103,295). The greater part of this appropriation, and especially of the increase, was applied to primary education.

The effect of these efforts has been felt beyond the province of the schools; in many cities courses of instruction for adults have been held with excellent results, which appear from the decline of illiteracy. In 1900 statistics showed that 42 per cent of the population were unable to read and write. Recent military statistics give 35 per cent as the ratio of illiteracy among the recruits.

Great interest is also shown in provision for the education of women, an interest growing out of the successful operations of the well-known Institute for Girls, at Madrid. This institute is the outgrowth of a mission school founded at Santander by the agency of Rev. William H. Gulick and his wife. The plan of a higher non-sectarian school for girls gradually took shape, and, without interference with the missionary work, was carried into effect at the capital city through the indefatigable efforts of Mrs. Gulick, supported by American philanthropy. The institute is under the general management of a board of directors in the United States, and in 1912 was moved to the present site, on which a commodious building had been erected. The opening ceremonies in its new home took the form of a memorial service for its foundress, who died just at the completion of this last effort in behalf of the enterprise.

Under the direction of Miss Susan D. Huntington, a graduate of Wellesley College, who had been connected with the work during Mrs. Gulick's administration, the institute has fully sustained its efficiency and influence as an educational center.

In close relation with the educational movement are the efforts for the improvement of agriculture and commercial affairs. The Government is taking an important part in the former by the establishment of experimental stations, where improved processes of agriculture are demonstrated for the benefit of the farming population. The commercial development is promoted, more generally, by municipal action. There is also a noticeable increase of provision for

scientific education in the higher institutions, so that, both from the educational and industrial standpoint, Spain seems to be entering upon a new era of progress and prosperity.

PORTUGAL.

Portugal has entered with some vigor upon the effort to make adequate provision of primary schools and to enforce the compulsory clause of the school law. For the latter purpose a special decree was issued by the Provisional Government under date of March 29, 1911. Measures have also been adopted looking to the improvement of normal schools and the development of science courses in the universities. It need hardly be said that the disturbed conditions of the country have not been favorable to the progress of these reforms.

EDUCATIONAL PROGRESS IN ITALY.

Recent educational progress in Italy has been marked, as in Spain, by the increased activity of the Central Government in the province of primary education. In view of the fact that the compulsory provision of the education law was nullified in large parts of southern Italy by the want of schoolhouses, an act was passed in 1906 pledging 18,000,000 lire ($3,600,000) for new buildings; in 1912–13 the appropriation for primary education was raised to 56,000,000 lire ($10,800,000), which was more than double the corresponding sum for 1911. It was provided in the act confirming the increased appropriation that four-fifths of the amount should be used to secure additional teachers and to raise the salaries of those in the service.

A direct effort to overcome illiteracy was made by an act of June 4, 1911, transferring the control of primary schools to provincial authorities in the case of communes reporting more than 25 per cent of illiterates in their population. The actual result of these successive measures can not be shown until the issuing of the next quinquennial report, which should bring the data down to 1912–13. From current advices, however, it is certain that large gains have been made in the number of schools and in their efficiency.

Striking phases of the current educational movement are the efforts to overcome adult illiteracy, and to prepare intending emigrants for the unforeseen exigencies of travel and of the strange conditions in foreign lands. This latter enterprise, developed under the auspices of the commissioner of emigration, is one of the most important welfare activities of the present age.[1]

[1] See Rep. Commis. of Educ., 1912, vol. 1, pp. 561–563.

RURAL SCHOOLS FOR THE ROMAN CAMPAGNA.

The provision of rural schools for the laborers of the great estates in the Roman Campagna is an enterprise of great interest in the midst of unusual conditions which are described as follows by a recent writer:

The laborers on the great estates of the Roman Campagna have been less in touch with the general movement of progress going on around them than those of almost any other part of Italy. It is indeed difficult to realize the extreme loneliness of Campagna life; its primitive conditions are almost incredible unless one has had experience of them, and the railways and tram lines which cross the great plain in all directions still leave wide tracts of country untouched. There are very few permanent inhabitants in the Campagna, as malaria, until recent times, rendered it uninhabitable for several months of the year; although with the reclamation and improvement of the land the number of fixed settlers is increasing, the bulk of the labor is still performed by companies of guitti, as these peasants are called, who come down from their native villages in the Latian or Abruzzi Mountains every autumn, fix their temporary quarters in those hamlets of curiously shaped straw huts which may still be seen round the various casali or farmhouses, and return home in the summer. One result of this migratory existence is that the school system, which has been so much developed in Italy during the last decades, had just missed the Campagna guitti; for, while schools have been opened in their own native villages, they can not avail themselves of these facilities, as they are at home only in summer time when the schools are closed, and in the Campagna itself the municipality of Rome, under whose jurisdiction they dwell, does not provide for them save in a few cases, as they are not natives of the commune. Communications with Rome are generally too difficult for the laborers to be able to send their children to the city schools, and, moreover, each settlement is so small and so temporary that it would have been impossible to provide them all with regular municipal schools. The hut villages are fast disappearing and their place is being taken by more solid dwellings of brick or concrete, but the temporary nature of Campagna farming has not passed away, and while it survives, the difficulty of providing the laborers with schooling remains.

The effort to provide instruction for this migratory population was undertaken by a group of philanthropic persons who succeeded the first year (1906) in establishing four schools. Teachers were secured from the staff of the Roman elementary schools who, with great self-sacrifice, devoted Sundays and two or three evenings a week to the experiment.

To quote again from the article referred to:

The interest of public opinion in the scheme was gradually awakened; money was contributed by the State, the municipality of Rome, and private subscribers; and the number of schools and pupils increased year by year. Several of the landlords and farmers, especially the latter, were won over and made to realize that they could get better and more intelligent labor from educated peasants than from the wholly ignorant; a few, indeed, such as the lessees of Prince Borghese's estate at Pantano Borghese, became quite enthusiastic over the work and granted every facility to the committee and the teachers. In some villages special huts were erected in the same style as those inhabited by the guitti, but more solidly built and better kept, serving thus also as object lessons; or else wooden "docker" pavilions were set up, provided with all the necessary school furniture, and with wide shutters which when open enable

persons outside to follow the lessons as well as those within; in one or two spots disused railway cars were turned into classrooms. It also became possible to pay the teachers better, although the fees given were by no means proportionate to the great hardship entailed. It was very necessary that the Campagna schools should be easily shifted from one spot to another, so as to follow the constantly shifting population, and in this the committee was successful. In one case a school changed its quarters four times in the course of a year, and every annual report mentions one or more schools as having been closed because there was no longer any population to provide for. In one Campagna village, Colle di Fuori, below Rocca Priora, in the Alban Hills, which is inhabited by a fixed population who migrated years ago from Capranica, above Palestrina, and is better built than the others, a permanent schoolhouse of brick has been erected, most of the money and the labor being supplied by the peasants themselves. The building, which is surmounted by a small belfry for summoning the children to school and decorated by a frieze by a Roman artist, was inaugurated last year with great solemnity, a number of persons from Rome having been invited to attend the ceremony so as to arouse their interest in the committee's work.

In 1912, the number of schools had increased to 43, with 1,280 pupils, and it was intended to open 58 schools during the winter of 1913–14. Better arrangements have been made for conveying teachers to and from Rome, motor-car service having been established by the committee, by means of which the teachers are brought out in the morning or at the opening of schools and returned to their homes at the close. Naturally the teachers who engage in the service are among the most vigorous and enterprising in the city, and in addition to the usual subjects, they instruct in singing, nature study, notions of moral principles, hygiene, and cleanliness. The interest of parents is excited, and they are often to be seen seated beside the children going through the simpler lessons. Where there is no school, the parents demand that one should be opened. They look upon the committee and the teachers as their friends and advisers, and thus the whole character of Campagna life and agriculture is being transformed through the agency of the rural schools.[1]

SECONDARY AND HIGHER EDUCATION.

Italy is abundantly supplied with secondary schools, universities, and higher technical schools. Indeed, owing to local independence and ambition in this matter, the country suffers from an excess of institutions, which would be strengthened by reduction in some instances and closer coordination in others.

The 21 universities include 17 which bear the designation "royal" and receive State subsidies; 4 are private foundations, that is, religious institutions authorized by the civil powers. Repeated efforts have been made to reduce the number of royal or State universities, which exceed both the needs and the resources of the nation. As a

[1] See The Times (London) Educational Supplement, Oct. 7, 1913, p. 153.

consequence, a few vigorous universities are found in the same class with a number of struggling institutions that are quite unable to maintain university standards and prestige. The condition has been the subject of much discussion in the legislature, but so far without result. Meanwhile, complaints have arisen that the standards of secondary education are depressed as a consequence of the competition for students on the part of the universities. These problems occupy at present the attention of the scholastic world and the opinion is generally expressed that their agitation is the preliminary to important reforms in secondary and higher education.

GREECE.

At the breaking out of the Balkan war, Greece had just entered upon educational enterprises of great promise. The awakened interest in child welfare was indicated by the measures for enforcing the compulsory provisions of the education law, and by the passage of a bill (session of 1911–12) forbidding the employment of children under 12 years of age in mills, factories, building operations, etc., and regulating the conditions under which children between 10 and 12 years of age might be employed by parents or guardians in harmless domestic industries. Women's organizations were active in promoting these measures, as well as in plans for rural improvement, which were engaging public attention. Equal interest was shown in the movement for the higher education of women, having particular regard to the growing demand for women teachers.

The territorial changes and general disturbance due to the Balkan wars have hindered the regular course of internal improvement in all the countries involved in the conflicts. In the case of Greece, however, enlarged responsibilities are giving new motives for the renewal of efforts at social reform temporarily interrupted.

The National University, at Athens, in the winter semester 1912–13 registered 2,800 students and reported for that year expenditures amounting to $137,450. The Technical High School enrolled the same session 300 students and had an income equivalent to $400,000. The relations between the two institutions are very intimate, the same professors often conducting classes in both.

THE BALKAN NATIONS.

The nations that were combined together in 1912 in war against Turkey (first Balkan war) had new boundaries settled by the Treaty of London, which bears date May 30, 1913; Albania was recognized

as a distinct principality, with a king nominated by the powers and accepted by the Albanians. Immediately war broke out among the allies (second Balkan war), which changed the new boundary lines (Treaty of Bucharest, signed Aug. 10, 1913).

The latest information that has been received relative to the systems of education in these countries was given in the Report of the Commissioner of Education for 1912 (Vol. I, pp. 575–577). University statistics of later date are as follows:

University statistics of Balkan nations.

Universities.	Year.	Students.	
		Men.	Women.
Bulgaria:			
University of Sofia	1912	1,570	546
Roumania:			
University of Bucharest	1912–13	2,898	385
University of Jassy	1913	900	.....
Servia:			
University of Belgrade	1912–13	1,049	118

TURKEY.

At the close of the first Balkan war, Turkey retained only a narrow strip of territory on the European side of the Bosphorus, which was slightly extended as a result of the subsequent conflict between the allies. Convinced of the need of internal reforms, the attention of the Government was turned to the Asiatic Provinces, which comprise an area exceeding 700,000 square miles, with a population of more than 20,000,000, as against an area of 9,900 square miles and a population of 2,250,000 in the European division. For the development of the Asiatic territory, important plans were made, involving a loan of $155,000,000 in France in return for valuable concessions granted to French capitalists interested in the construction of railways through some of the richest mining and agricultural regions. Other concessions were secured by German companies for irrigation works and by French companies for the improvement of ports. These projects for material development were accompanied by measures for the reform of schools and for promoting sanitary conditions in the chief cities.

At Constantinople extensive improvements were undertaken, the buildings under contract at the beginning of 1914 including several new schoolhouses. Similar activities were reported from the cities of Asia Minor.

In regard to modern education, the dependence must necessarily be for some time upon foreign missionary agencies. The principal

institutions under foreign auspices in the Turkish Empire were described in the previous Report of the Commissioner of Education.[1] They include, at Constantinople, Robert College and the American College for Girls, founded and maintained by Americans; and the Syrian Protestant College and the Catholic University of St. Joseph, which are centers of modern knowledge and liberal ideas at Beirut.

[1] See Rep. Commis. of Educ., 1913, Vol. I, pp. 851–854.

CHAPTER XXXVI.

EDUCATION IN RUSSIA.

CONTENTS.—Extent and population of the Empire—Elementary schools—Secondary and higher institutions—Appropriations for education for 1911 and 1912—Movements affecting the peasant class; Government aid for peasant farmers; aids to agricultural development in the Caucasus; encouragement to peasant industries.

EXTENT AND POPULATION OF THE EMPIRE.

The Russian Empire covers one-seventh of the land area of the globe and in 1912 comprised a population of 171,060,000 (estimates of the Central Statistical Commission). Russia in Europe, with an area less than one-fourth the total, has more than four-fifths of the population. The different divisions of European Russia vary in density of population from 1.4 to 419 inhabitants to a square mile, the average density being 69.2. The density of the Asiatic division of the Empire is only 4.1 inhabitants per square mile. Of the entire population more than half (92,000,000) are Slavs. Lithuanians number about 3,000,000, and other Aryans bring the total to 100,300,000. The Jews, who have played a very important part in the destinies of the Empire, number only 5,070,000; the Ural Altains comprise 17,660,000, and the remainder are distributed between several races. Religion, which has been a determining factor in education throughout the Empire, has made for diversity rather than unity among the people. The established religion of the Empire is the Greco-Russian, officially called the Orthodox faith. The adherents of this church form 70 per cent of the entire population, Mohammedans follow with 10.8 per cent, Roman Catholics 9 per cent, Protestants 5 per cent, and Jews 4 per cent.

ELEMENTARY SCHOOLS.

Under the conditions mentioned, the endeavor to establish a system of public instruction in Russia presents difficulties surpassing those that are encountered in any other nation of Europe. According to the most favorable estimates, the enrollment in elementary schools is only $3\frac{1}{2}$ per cent of the population, which is far below the proportion in other European nations, the range being from 14 to 18 per cent in the countries where elementary education is generally diffused. Finland, which differs entirely from the rest of the Russian Empire in respect to education and social progress, is not included in the present consideration.

The following table summarizes the statistics of elementary schools given in the latest report of the imperial minister of public instruction:

Statistics of primary education, 1911.

Controlling authorities.	Schools.	Teachers.	Pupils.
Ministry of public instruction	59,682	130,019	4,186,078
Holy Synod	37,922	66,525	1,793,429
Other ministries and various foundations	2,691	6,729	201,003
Total	100,295	203,273	6,180,510

SECONDARY AND HIGHER INSTITUTIONS.

In Russia, as in other countries, education is more generally diffused in the cities than in the rural areas, and it is naturally more extended in scope, as the cities enjoy the direct influence of higher institutions. The student body who receive liberal or special education in the universities and higher technical schools rival those of the most advanced nations. Language, literature, science, and art are pursued with intense and passionate ardor by the intellectual classes.

The following statement gives the enrollment in secondary and higher institutions at the lastest date reported:

The secondary schools of Russia comprise several classes of institutions under different authorities, those pertaining to the ministry of public instruction having the same classification as the corresponding schools of Germany. The latest official statistics, bearing date January 1, 1911, give a total of 124,555 pupils in the gymnasia and progymnasia for boys, and 67,230 in the "real schools." The corresponding schools for girls, which offer generally a special course for teachers, enrolled at that time 259,079 pupils. The students in the secondary schools under other authorities enrolled 123,207 boys and 50,761 girls, making a total enrollment in secondary schools of 624,832 pupils, of whom 314,992 were boys. At the same time there was an estimated attendance at special schools for the blind, deaf and dumb, and in private schools, chiefly denominational, of about 816,000 pupils. Thus it appears that in 1911 there were 7,312,000 pupils in the primary and secondary schools of Russia (Finland not included).

The 10 universities of Russia registered 36,147 students in 1912, and the six higher technical institutions about 10,000 students.

APPROPRIATIONS FOR EDUCATION FOR 1911 AND 1912.

The State appropriations for education in 1911 were as follows: Ministry of public instruction, 91,694,204 rubles ($47,222,410); other ministries for the support of schools, 13,269,204 rubles ($6,833,640)—total, 104,563,204 rubles ($56,056,050). The corresponding amounts for 1912 were: Ministry of public instruction, 114,436,072 rubles

($58,934,577); other ministries, 17,289,039 rubles ($8,903,855)—total, 131,725,111 rubles ($67,838,432). For elementary schools alone the ministry of public instruction in 1911 expended 46,083,000 rubles, and the Holy Synod about 15,000,000, making a total of 61,083,000 rubles ($31,457,745). The budget estimates for 1913 included for educational purposes a total of 162,638,975 rubles ($83,759,072), of which 67 per cent was assigned to the ministry of public instruction.

MOVEMENTS AFFECTING THE PEASANT CLASS.

The peasants, who form 75 per cent of the population of Russia, present both to sociologists and psychologists problems of absorbing interest. This vast body of the people have scarcely yet been touched by the agencies of formal education. At the same time by reason of their numbers and the economic importance of agriculture, the development of the peasants is a matter of great significance. Its necessity was recognized by all thoughtful leaders in 1861, when serfdom was abolished, and it is emphasized by the agrarian revolutions that have marked the recent internal conflicts in the Empire. Hence the most important educational movements in Russia during the last few years are those directly relating to the peasantry.

In the movement for the uplift of the rural population Russia is brought into the current of social progress which has spread throughout the civilized world; but in Russia the movement takes a direction peculiar to that country. Everywhere else schools have been centers and effective agents in this movement, but in Russia the schools are wanting. Nor could the deficiency be overcome at once. A measure providing for universal compulsory education, debated in the first and second Dumas and adopted by the latter, was overruled as premature.[1] The establishment of schools goes on, however, and in some regions quite rapidly, through the action of local authorities and private individuals, philanthropists, landed proprietors, and captains of industry, moved by liberal impulses or economic forethought.

In the absence of adequate provision for even elementary instruction, the intellectual awakening of the peasant class has been promoted by political and social agitations. The reality and the outcome of these agitations are manifest in the internal upheavals that followed close upon the war with Japan, in the activities of the first and the second Duma, and in the peasant uprisings that have marked the revolutionary conflicts of the present decade. Apart from their excitation of individual minds, these upheavals have resulted in distinct efforts at the reform of rural life and industry. All such efforts have, primarily, political and social aims rather than intellectual and

[1] See Report of Commissioner of Education, 1913, Vol. I, pp. 855-56.

moral enlightenment; while these ulterior purposes do not belong to the present consideration, they should be mentioned, because at any moment they may interfere with the measures that are directly educational, and prevent the results which from the standpoint of American experience would naturally be expected. It should also be considered that these measures are not national in their extent, but limited to particular communes or governments.

Notwithstanding these restrictions, great significance attaches to the educational endeavors in behalf of the rural population, which are illustrated by the following examples drawn from authentic sources.

GOVERNMENT AID FOR PEASANT FARMERS.[1]

Among the poorer and more backward peasants the primitive wooden plow is still in use, and wooden harrows are often met with. In central Russia rye is cut with sickles; other cereal crops, as a rule, with scythes. Flails are used throughout the country, except in the south, where thrashing is done by means of stones dragged by horses, etc.

Agricultural machinery was only introduced a few years ago, but is becoming popular, especially in the south and in western Siberia, where land is abundant and the peasants are well-to-do.

The Government has organized experiment stations in various sections of the country, while the zemstvo offers assistance to the peasants through special instructors and agronomists.

AIDS TO AGRICULTURAL DEVELOPMENT IN THE CAUCASUS.[2]

Considerable progress has been made in all branches of agriculture during recent years, and several important steps were taken in 1913 for its improvement. One of these was the appointment by the viceroy of the Caucasus, of a commission of leading agriculturists who are to be assisted by Government specialists in all branches of agriculture. This commission is to assist communal and public bodies in dealing with agricultural questions and in promoting rural industries under the direction of the board of agriculture. The zemstvo agricultural organizations, under the guidance of provincial agriculturists, are to furnish advice to the farmers; district agriculturists, assisted by special instructors, are to attend to the needs of the various districts; and agricultural stations are to be established.

It was recommended that meetings be held under the presidency of the provincial governors to discuss agricultural projects. A permanent agricultural commission has been proposed under the presidency of the chief of the agricultural section of the Caucasus, to consist of representatives from the Tiflis botanical garden, the Caucasus sericulture station, the board of agriculture, the zemstvo section of the offices of the viceroy, and other bodies. Projects for agricultural education include an agricultural section in the Tiflis Polytechnic Institute, special intermediate schools for agricultural instruction, and courses in agriculture in the elementary schools.

The Caucasus board of agriculture granted about $500,000 in 1913 for the promotion of rural industries, an amount considerably larger than that granted in 1912. Of the total, $300,000 was set aside for research, $35,000 for agricultural organizations, $10,000 for the improvement of live stock, and $20,000 for general measures, such as exhibitions, meetings, statistics, and the destruction of harmful insects.

An important innovation was the establishment in September of a refrigerator-car service from different points in the Caucasus, as well as from Turkestan, for the conveyance of fresh fruit and vegetables to northern Russia.

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[1] From report by John H. Snodgrass, American consul general, Moscow, Jan., 1914.

[2] From report by Leslie A. Davis, American consul, Batum, Russia, June, 1914

TOBACCO CROP AND PRICES—DEVELOPMENT OF TEA INDUSTRY.[1]

The tobacco crop in the Caucasus in 1913 is estimated to have been between 14,000 and 15,000 tons. The quality was better and prices from 30 to 50 per cent higher than in 1912. Prices for the Trebizond variety ranged from 14 to 26 cents a pound, and of the Samsun varieties from 20 to 50 cents a pound. The crop in Kuban Province amounted to only 4,800 tons, or about half the ordinary crop; but the quality and prices were good, the latter ranging from 6 to 17 cents a pound, or 30 to 50 per cent higher than in 1912. The crop in the Sukhum district was about 6,000 tons, a little less than in 1912.

The greater part of the tobacco exported went to Egypt and the remainder to Germany, France, England, and the United States. Continental and Egyptian interests are purchasing tobacco for manufacture abroad.

The tea crop for 1913 was fairly good. The yield of raw leaf was 1,174,000 pounds and of manufactured tea 271,000 pounds, as compared with 999,000 and 242,000 pounds, respectively, in 1912. In 1913 several acres were added to the area already under tea belonging to the imperial domains at Tchakva, and tea growing is becoming more general among private individuals. The agricultural society at Batum has decided to construct a tea factory just outside the town, to which tea that is grown in the surrounding districts will be brought for curing. The National Government is assisting the tea industry by distributing plants and seeds in the tea-growing zone and has granted $7,725 for construction work in connection with the factory. Funds have also been assigned for the tea factory that is under construction at Ozurgeti and an instructor has been appointed to manage the factory and instruct the rural population in the art of cultivating tea.

Considerable attention is paid to public education in the Caucasus, and there was an increase during the year in the number of schools of all classes. Steps were also taken toward making attendance compulsory. One of the most interesting measures taken was an attempt to establish in the Government of Erivan two movable summer schools for the nomad tribes. Summer employment was also introduced in eight elementary schools of the Kutais government and in two schools of the Black Sea government.

A site has been selected for the new polytechnic institute at Tiflis, and the building is to be erected in the near future. It has been decided to organize the institute in four sections—agricultural, chemical, mechanical, and economic. The building of the Caucasian museum and public library at Tiflis is in process of erection, and its completion is expected in 1914. It is of four stories and is to cost about $200,000.

ENCOURAGEMENT TO PEASANT INDUSTRIES.

In addition to the cultivation of the soil the peasants practice industrial arts which are utilized for their economic betterment. This is done largely through their local organization, which is controlled by a communal assembly (mir), composed of the householders of the community. These assemblies elect members to the district and provincial assemblies (zemstvos), and they have indirect representation in the Duma. The peasants also have special courts, which in certain matters have the right to follow local usages. It is true that the action of the communal assemblies and of the courts may be overruled by Government officials; but in spite of this restriction, the communal administration affords a center of cooperative action in respect to local matters.

[1] From report of American consul.

The important fact in respect to the long-established peasant industries is the recent endeavor on the part of provincial assemblies (zemstvos) and the Central Government to organize and aid them. The first systematic effort in this direction was made by the Moscow zemstvo, which opened a museum in Moscow for the exhibit of the products of these industries in 1885, and in 1888 organized a special commission to direct and extend the work. The help given is in the form of raw material, of instruction in the ways of finishing the articles manufactured, and of arrangements for facilitating the sale of the articles. This example was rapidly followed by other zemstvos, and in 1910 there were 34 governments that had organized workshops for training the peasants and arranged for permanent exhibitions and for the supply of the raw material to the peasant workers (koustari). The part of the Central Government in promoting this work is described as follows by the authority above quoted:

The interests of the koustarnui industry are intrusted to the department of rural economy and statistics of the ministry of agriculture. This department employs a special staff of experts in different branches of koustarnui work, has 12 technical schools managed by State instructors, lends money on long credit, subsidizes koustarnui stores and workshops, publishes albums of drawing and designs, organizes exhibitions, and helps to maintain the St. Petersburg Koustarnui Museum, started by the Government in 1900. Besides this, when the State gives orders for koustarnui goods, the department acts as intermediary between the zemstvos and the respective Government institutions, and further affords financial aid in exporting the products abroad. During the last five years the treasury has contributed over 3,300,000 rubles for the development of koustar (cottage) industries, the estimates for 1913 being 1,647,000 rubles.

With respect to these industries a well-known authority says:

The position of the peasant in Russia, his well-being or his poverty, is largely due to the existence of the organized peasant industries. Far from being the most poverty-stricken agricultural class of Europe, his economic condition will stand comparison, within certain well-defined limits, with that of the tillers of the soil of the greater part of the continent. The natural tendencies of the great Russian people have made the existence of this organized industry possible. More than any other people they have the instinct for cooperative working, an instinct which has resulted in, and been fostered by, the institutions of the mir in the villages, and of the artel, or temporary voluntary associations of workmen, outside them.

The most recent investigations seem to show that there are more than 8,000,000 of the inhabitants of European Russia whose time is shared between agriculture and some form of industrial handicraft, meaning by this term the production of some sort of merchandise for sale, not for use in the family of the producer; and about 4,000,000 or thereabouts whose whole time is engaged in handicrafts and small machine industries not grouped in the modern factory system. Where the wares produced are desirable and salable, the concomitant advantage of a healthy home life to the producer is a national asset.

The number of these villages is almost unlimited, and as a rule only one industry is pursued in each village; different provinces have become celebrated for the skill of the people in industries of the same general character, such as textile, industrial, metal working, pottery, etc.

CHAPTER XXXVII.

MODERN EDUCATION IN ASIA AND AFRICA.

CONTENTS.

Asia: Japan—Report of the minister of public instruction.—China—Modern education.—India—The sixth quinquennial review.
Africa: Progress in Egypt.—The coast regions.—The Union of South Africa.

JAPAN.

REPORT OF THE MINISTER OF PUBLIC INSTRUCTION.

The report of the minister of public instruction in Japan brings the record of education in that Empire to the close of 1913, with comparative tables showing progress in the half decade.

The system is marked by complete provision for primary education, thorough preparation of the teachers, and the high qualifications required for supervisory officers. The central department maintains close relations with the schools by means of annual conferences at the capital, to which selected teachers are called from every district, and by frequent conferences of the local inspectors. At these gatherings opinions and experiences are interchanged, instruction imparted, and new plans unfolded, and the delegates return to their duties with new enthusiasms and ideals.

In the provinces of secondary and higher education great care is exercised to limit the number of institutions, whether general or special in character, to the actual needs of the country, and to bring each institution to a high degree of efficiency. Quality rather than quantity is the aim.

The minister urges special efforts at moral and ethical instruction in every class of schools, primary, higher, and special, and emphasizes the need by a letter from the Emperor, as follows:

> As the building up of a vigorous nation can only be effected through the diffusion of general education, those who are engaged in that effort should ever be assiduous and painstaking.

Special attention is called in the report to recent extensions or changes in the official regulations for different classes of schools. In the higher primary schools, courses in manual training, agriculture, and commerce have been made obligatory, all pupils being obliged to take one or other of the subjects named. English, which was formerly treated as an independent subject, has been included in the

commercial course, with a view of making the instruction more practical.

The salaries of teachers have been raised and special rank conferred upon meritorious principals who have been over 20 years regular teachers of elementary schools.

In the high schools for girls a course in household management has been substituted for the special art course, and authority given to establish high schools for girls which provide only an industrial course suited to their wants. In the regulations for normal schools, a course in ethics has been extended and strengthened. In the instructions pertaining to technical education, as well as to university education, new emphasis is placed upon the training of character, and provision has been made for increasing the equipment of all the higher institutions.

The following table summarizes the statistical data respecting schools and higher institutions for the years specified:

Statistical summary.

Classes.	Number of schools.		Instructors and teachers.		Students.		Graduates.	
	1911–12	1908–9	1911–12	1908–9	1911–12	1908–9	1911–12	1908–9
Elementary schools	25,750	26,386	157,536	134,337	7,023,661	5,996,130	1,036,083	470,210
Schools for blind and dumb	55	40	342	221	2,571	1,802	312	243
Normal schools	83	75	1,571	1,307	27,076	21,618	11,826	7,864
Higher normal schools	2	2	128	120	1,070	980	202	235
Higher normal school for girls	2	1	99	45	590	365	112	123
Special institutes for the training of teachers	2	2	18	18	55	56	26	26
Middle schools	314	296	6,092	5,719	125,304	115,038	18,404	15,007
High schools for girls	250	159	3,300	2,395	64,809	46,582	14,780	10,250
High schools	8	8	355	303	6,665	5,435	1,585	1,269
Imperial universities	4	3	684	553	7,438	7,517	1,752	1,698
Special schools	65	54	1,933	1,765	27,468	27,438	4,257	4,751
Special technical schools	20	13	660	475	6,983	6,114	1,621	1,549
Technical schools, A and B grades	507	403	4,386	3,627	70,085	56,573	16,344	12,246
Supplemental technical schools	6,740	4,751	2,237	2,049	302,341	192,331	94,058	42,350
Institutes for the training of technical teachers	3	3	.....	.....	156	151	60	54
Miscellaneous schools	2,276	2,180	7,435	7,944	142,868	148,971	45,941	39,682
Total	36,081	34,376	186,776	160,878	7,809,140	6,627,110	1,247,363	607,557

The expenditure for public schools of all grades below the universities in 1911–12 amounted to 79,692,983 yen ($39,687,105), an increase of 3,000,000 yen over the preceding year. The appropriations for universities are included in the expenditures for the department of education, which amounted to an additional 10,448,331 yen ($5,203,258).

MODERN EDUCATION IN CHINA.

The system of modern education in China, ordered by imperial decree of September 5, 1905, has been continued by the Republic. The early efforts in this direction pertained chiefly to the establish-

ment of higher institutions. The present minister of education places main stress on elementary schools and the training of teachers for their service, and, as a rule, the governors of the different Provinces seem to be giving hearty support to his plans. It is difficult, however, to form a clear idea of the progress in establishing the modern system, on account of the vast extent and local organization of the country, which consists of 18 Provinces having independent authority in respect to education, and comprising an area of one and one-half million square miles, with a population exceeding three hundred million.

INSTITUTIONS UNDER PUBLIC CONTROL.

Recent official statements give a total of 34 colleges, i. e., law, technical, etc., and six higher normal schools, established in various capital cities. The Peking Government University, an ancient literary high school, was organized as a modern institution about four years ago. The Government has agreed also to recognize the diplomas of the Union Medical College, founded at Peking by British missionaries. In the Province of Chihli a university has been established at Tientsin, and at Pao Ting-fu an Anglo-Chinese college.

TSING HUA COLLEGE.

One of the most important Government institutions is the Tsing Hua College, an outcome of the indemnity fund returned to China by the United States, amounting to $10,785,286. As a consequence of this liberal action, it was announced by the Government of China that—

> from the year when the return of the indemnity begins, 100 students shall be sent to America every year for four years, so that 400 students may be in America by the fourth year. From the fifth year and throughout the period of the indemnity payments, a minimum of 50 students will be sent each year.

Regulations were at once drawn up in accordance with this decision which, among other things, provided that "the Board of Foreign Affairs should be responsible for the establishment of a training school in China and the appointment of the superintendent of students in America." Specific directions for the choice of these students and their distribution in the United States were issued by the board, and plans were at once adopted for the establishment of a training school at Peking to prepare students for their work in the United States. This is the function of the Tsing Hua College, which is named from the beautiful estate selected for its site.

The college was opened in 1911, but the revolution interrupted its work, and it was not until the spring of 1912 that operations were definitely resumed. The affairs of the college are administered by a

board, of which the president is Mr. Tsur Ye-Tsung, who has the degree of A. B. from Yale University and of M. A. from the University of Wisconsin. The dean of the institution is Mr. Chao Guo-Tsai, also a Wisconsin graduate. Of the eight remaining members of the administrative board, two are graduates of American universities.

The college is organized in two departments. The faculty of the Chinese department comprises 9 professors; the faculty of the Western department comprises 20 English professors, of whom 19 are American graduates, from leading institutions of this country; 2 of the number have also degrees from European universities; 1 is a native of China, holding the degree of A. B. (in education) from the University of Wisconsin and of M. A. in sociology from the University of Chicago. The teaching corps includes, also, 7 instructors who are natives of China and graduates of foreign universities.

The candidates for admission come from the various Provinces, the number from each Province being determined by the amount of the Boxer indemnity that falls to its share. The course of study in the middle school covers four years and leads to a certificate which admits the holder to the high school; the latter also has a four-year course. Students who complete this successfully receive a diploma, and may then be sent to the United States to pursue advanced studies under rules in force for a period of five years. The high-school graduates of 1913 numbered 43, and the class of 1914 had 34 students.

THE SCHOOL OF CONSERVANCY ENGINEERING.

Under date of October 9, 1914, a presidential mandate was issued relative to the opening of a school of conservancy engineering in accordance with the advice of the minister of agriculture and commerce. A fund equal to $20,000 was set aside for this purpose.

EDUCATIONAL ASSOCIATIONS.

The educational movement is promoted by provincial educational associations, of which the Kiangsu Association may be taken as a type. It was organized in 1906 with headquarters at Shanghai, was sanctioned by the Chinese Emperor, and has been continued under the Republic with a revised constitution and rules.

The unification of the educational work of the Provinces has been promoted by conferences of the local educational societies and by a national convention called by the Kiangsu Association. This convention, the first of its kind in China, met in 1911 in the office at Shanghai and included delegates from 11 Provinces.

The general purposes of the association are furthered by the publication of a monthly educational magazine which has very wide cir-

culation, and by bulletins, treating in a practical way of school problems. The association also maintains a "single grade" teachers' institute which is modeled after a very successful institute of the same character in Japan.

The school committee of the association was authorized by the Kiangsu provincial legislature to undertake the examination and approval of textbooks suitable for the modern schools. This work was begun in 1912; and in February, 1913, a report approving 55 out of 180 textbooks examined was submitted, and the books were subsequently authorized for use by the civil governor of the Province.

INSTITUTIONS UNDER FOREIGN AUSPICES.

The International Institute of China was established at Shanghai about 20 years ago, for the purpose of promoting the general welfare of the country—moral, material, and political. It received imperial sanction in 1909, and under the present Government has increased its influence.

The work of the institute is organized in four sections: Commercial, educational, religious, and the woman's section. The funds for its support are derived from private sources. The director in chief is Dr. Gilbert Reid, who is assisted by an advisory committee and an executive committee, comprising both native and foreign members of distinction.

The educational work of the institute is carried on chiefly through the medium of conferences and the museum. The latter comprises Chinese exhibits intended to illustrate the peaceful arts of the country.

The conferences are arranged for by the different sections of the institute and relate to the specialties promoted by each section. Among the educational conferences held during 1913 was a series on national heroes, also two addresses relating to constitutional government, an address on education and religion by Dr. W. H. Faunce, president of Brown University, an address on the Hongkong University by its president, Sir Charles Eliot, and one on social legislation by Prof. Henderson, of the University of Chicago.

The woman's section of the institute works in intimate relation with the Ladies' International Club, and is specially engaged in promoting the advancement of women and the welfare of children.

YOUNG MEN'S CHRISTIAN ASSOCIATION.

China has proved a favorable field for the activities of the Young Men's Christian Association, which is contributing in many ways to promote the modern educational movement. The work of the asso-

ciation is directed by a national committee, on which all the local associations in the country are represented. The headquarters of this committee are at Shanghai, where it will soon occupy a building of its own.

In a recent survey of its operations the national committee emphasizes the following particulars:

> The successful work of the Shanghai Young Men's Christian Association in establishing and maintaining a day school and an evening school with a total enrollment of over a thousand students demonstrates once more the eagerness of boys and young men for knowledge and culture. Through the medium of these schools the association comes into touch with the future leaders of the country along the various walks of life. Not only they themselves come within the Christian atmosphere of the association, but through them their homes are also reached.

Among the agencies for popular education maintained by the association, mentioned in the survey, are correspondence classes, vacation schools, general welfare work, and university extension carried on by lectures, exhibits, exhibition cars, etc.

The great interest manifested by the Chinese people in scientific lectures has led to somewhat extensive provision for illustrating topics, both by pictures and apparatus.[1]

MISSION SCHOOLS AND COLLEGES.

Catholic and Protestant mission schools and colleges are found at all principal ports and many interior cities of China. A recent report of these schools gives the following summary:

Statistics of mission schools.

	Lower schools.		Middle and high schools.	
	Schools.	Scholars.	Schools.	Scholars.
Protestant:				
English	1,445	32,303	241	7,552
American	1,992	44,354	286	23,040
German	164	4,862	15	523
Catholic	6,877	126,305	157	6,545

In addition, England and America have collected $2,380,000 more for universities in Shantung, Hankow, and Hongkong.

CHINESE INDEMNITY STUDENTS.

According to the Chinese Educational Mission, there were 250 Chinese students in the United States in 1914 maintained from the indemnity fund:

[1] See China's Young Men (English edition), April, 1914, pp. 101, 104–107.

The distribution of the students was as follows:

Boston Medical School	1	Ohio State University	1
University of California	2	Oakland High School	1
University of Chicago	5	University of Pittsburgh	3
University of Colorado	10	Princeton University	6
Columbia University	22	University of Pennsylvania	1
Cornell University	28	Purdue University	3
Force School	1	Rensselaer Polytechnic Institute	1
Emerson Institute	11	Tufts College	1
Harvard University	16	Union College	1
University of Illinois	13	University of Virginia	1
Johns Hopkins University	1	George Washington University	2
Lehigh University	12	University of Wisconsin	14
University of Maine	1	Williams College	1
Massachusetts Institute of Technology	29	Worcester Polytechnic Institute	2
University of Michigan	28	Yale University	5
North-Western University	1	Total	214

Full scholarship students ($960)	214
Partial scholarship students ($500)	36

As to courses of study pursued, 14 of the Chinese students are taking civil engineering; 6, medicine; 18, mechanical engineering; 24, mining; 16, electrical engineering; 3, sanitary engineering; 4, railway administration; 3, law; 15, chemistry; 1, forestry; 12, agriculture; 8, architecture; 6, education; 1, banking; 1, commerce; 8, economics; 21, political science; the rest are enrolled in the regular arts and science courses.

INDIA.

THE SIXTH QUINQUENNIAL REVIEW.

The endeavor to establish systems of modern education in India is a work of great magnitude, extending over an area of more than a million square miles, pertaining to a population of 225 millions, and maintained, at present, at an annual expenditure of 25½ million dollars.

The sixth quinquennial review of education in British India, just issued, covers in detail the period 1907–1912, and in a brief introductory statement outlines the educational policy of the Government. The spirit with which the new era opens was expressed in the reply of the British King to the address of the Calcutta University in 1912, during his visit to his eastern empire. On this occasion His Majesty said:

> It is my wish that there may be spread over the land a network of schools and colleges, from which will go forth loyal and manly and useful citizens, able to hold their own in industries and agriculture and all the vocations in life. And it is my wish, too, that the homes of my Indian subjects may be brightened and their labor

sweetened by the spread of knowledge with all that follows in its train—a higher level of thought, of comfort, and of health. It is through education that my wish will be fulfilled, and the cause of education in India will ever be very close to my heart.

The principal departure in the general administration of the system is the appropriation of large grants from imperial revenues to assist the several Provinces in the development of their systems of education. These funds are to be managed in the spirit of economy, but without any purpose of centralizing control of the systems or establishing "a superficial uniformity." The cardinal principles of the policy to be pursued, as set forth in the report, are, briefly, the steady raising of the standard of existing institutions; the direction of primary and secondary education to more practical ends than heretofore, by means of "manual training, gardening, outdoor observation, practical teaching of geography, school excursions, organized tours of instruction"; "provision for higher studies and research in India, so that Indian students may possess every facility for higher work without having to go abroad." It is agreed by the General Government and the provincial governments that the time has not come when the principle of compulsory education can be applied in India, or elementary education be made entirely free. Local governments are urged to extend free elementary education among the poorer and more backward sections of the population. More than this is not possible at present.

The hope is expressed that in the near future at least 91,000 primary public schools for boys will be added to the 100,000 now in operation, and the number of their pupils, which is at present four and one-half millions, doubled. Vernacular continuation schools, which prepare pupils for entrance to more advanced studies that do not demand acquaintance with a foreign language, have increased during the last decade from 2,135 to 2,666, and the number of their pupils from 177,000 to 257,000. The report dwells upon the importance of the schools of this class, and urges that an advanced vernacular course shall be provided at selected centers to prepare students for teaching in these continuation schools. Attention is called to the fact that—

in some Provinces special classes have been opened in secondary English schools for scholars who have been through the whole course at a vernacular continuation school, in order to enable them to make up ground in English. There is much experience to the effect that scholars who have been through a complete vernacular course are exceptionally efficient mentally.

The number of girls under instruction has doubled in a decade and is now about 870,000. Although this number is insignificant in proportion to the female population, there are indications in many areas "of a swiftly growing demand for a more extensive education of girls."

While placing great stress upon the importance and extension of primary education, the report deals comprehensively with the higher institutions, and emphasizes the need of technical education. In this connection, attention is called to the system of scholarships tenable in Europe and America. This system, it is agreed, is still on trial, and its recognized disadvantages furnish new motives for increasing the facilities for technical instruction in the Provinces. Attention is called to the Indian Institute of Science, established at Bangalore through the generosity of the Tata family, seconded by liberal aid from the Government of India and the Maharaja of Mysore. The institution was thrown open to pupils in 1911. The establishment of a Technological Institute at Cawnpore for the chemistry of sugar manufacture and leather, for textiles and for acids and alkalis, has been sanctioned, and funds have been appropriated for the purpose.

The following tables summarize salient particulars respecting the different classes of institutions comprised in the systems with which the report deals:

Number of pupils in public schools and colleges in 1912.

Provinces.	Arts colleges.	Professional colleges.	Secondary schools.	Primary schools.	Special schools.	Total.
Madras	4,939	862	110,336	1,029,050	7,699	1,152,886
Bombay	3,719	1,239	74,601	757,130	5,620	842,309
Bengal	9,716	2,184	205,931	1,206,385	130,701	1,554,917
United Provinces	4,656	1,188	97,056	512,293	6,395	621,588
Punjab	2,659	890	99,418	208,679	4,521	316,167
Burma	324	.....	85,321	181,406	3,259	270,310
Eastern Bengal and Assam	2,989	167	186,641	815,199	20,880	1,025,876
Central Provinces and Berar	608	106	55,295	256,203	774	312,986
Coorg	.....	.....	439	5,743	21	6,203
Northwest Frontier Province	38	.....	9,332	16,054	59	25,483
Total	29,648	6,636	924,370	4,988,142	179,929	6,128,725
Total in 1906–7	18,918	6,250	713,342	3,937,866	68,104	4,744,480

Expenditure on education, 1911–12.

Provinces.	Direct.	Indirect.	Total.	United States equivalent.
	Rupees.	*Rupees.*	*Rupees.*	
Madras	9,453,469	4,111,633	13,565,102	$4,395,093
Bombay	10,760,164	2,857,363	13,617,527	4,412,078
Bengal	11,522,550	5,679,884	17,202,434	5,573,588
United Provinces	6,645,514	4,147,324	10,792,838	3,496,879
Punjab	4,274,518	2,590,391	6,864,909	2,224,230
Burma	3,119,502	1,617,139	4,736,641	1,534,671
Eastern Bengal and Assam	5,560,709	2,485,652	8,046,361	2,607,020
Central Provinces and Berar	2,290,646	974,795	3,265,441	1,058,002
Coorg	61,178	11,676	72,854	23,603
Northwest Frontier Province	253,027	175,471	428,498	138,833
Total	53,941,277	24,651,328	78,592,605	25,464,004
Total in 1906–7	38,867,352	17,036,321	55,903,673	18,112,790

PROGRESS IN EGYPT.

The advance of modern education in Africa necessarily follows the course of European colonization and commercial developments. Under French rule Algeria has become a separate division of the French system, conforming to it so far as possible in the organization of schools and scholastic standards.

In Egypt modern education is the product of missionary enterprise and of the efforts of the two European powers, France and England, that have exercised chief influence in the government. In respect to internal developments and the organization of schools the country has made remarkable progress since the British influence became supreme. The ancient village schools have been developed by State aid, and the Government supports 30 model primary schools which prepare students for admission to minor posts in the civil service. In the chief cities secondary schools, organized under Government auspices, offer a four years' course preparing students for admission to intermediate civil posts and also to the colleges of law, medicine, and engineering at Cairo. These higher colleges and the secondary schools are largely staffed by English teachers. Schools of commerce and engineering are numerous, and compare favorably with European institutions of the same order. An important phase of the recent development is the increased provision made for the education of girls and the interest in this effort excited among the native population.

Plans for the endowment and organization of a Christian university at Cairo, Egypt, have been recently formed in the United States and a board of trustees appointed to work out the details of the institution. At a preliminary meeting of this board, held in New York, December 1, 1914, the Rev. Dr. J. R. McClurkin, pastor of the Shadyside United Presbyterian Church of Pittsburgh, was elected president. The scholastic organization as outlined at the meeting includes a collegiate department and a graduate school with courses in Arabic literature and history, Islamic theology and criticism, biblical archæology, political science, education, Christian apologetics, agriculture, engineering, law, and journalism. It was announced by the trustees that subscriptions to the amount of $200,000 had been obtained and that measures were in progress for raising the fund to $2,000,000. The university will not be sectarian. It is intended to draw students not only from schools in Egypt, but from the entire Moslem world.

THE COAST REGIONS.

The coast regions of Africa, both on the eastern and western borders, are comprised in what have been termed "spheres of influence," chiefly French or German. In all the French divisions, schools have been established at the centers of administration. The island of Madagascar, on the eastern coast of Africa, which has been a French colony since 1896, has a complete system of education, gratuitous and compulsory as regards the elementary stage.

THE UNION OF SOUTH AFRICA.

The Union of South Africa was constituted by an act of 1909, which became effective May 31, 1910. Each of the four colonies comprised in this federation had a system of education well developed before the union, and the independence of these separate systems was guaranteed by the act, for a period of five years. Meanwhile, the entire subject was committed to a commission of investigation in order that measures, which might be adopted at the close of that period, should be determined in full view of the needs and possibilities of the separate provinces. The principal points in the report of the commission were presented in the annual report of this bureau for 1912 (Vol. I, pp. 602–604).

The effect of the union has been to stimulate educational activity in all the provinces, and as regards the white population, the provision of schools compares favorably with that in European countries generally.[1]

One of the most important problems resting upon the present Government is that of the training and education of the native races and the colored people, including the children of mixed parentage. Peculiar difficulties are experienced from the fact that separate schools must be maintained for the white and colored children, and a third class for the contingent of East Indians in the several colonies. At present, while Government schools are maintained for the non-European children, the chief dependence for their instruction is upon mission schools.

The twenty-sixth annual conference of the South African Teachers' Association was held at Graaff-Reinet in June of the present year. The address of the president, Mr. C. A. Organ, was a forceful appeal for the establishment of continuation schools, with compulsory attendance provisions. The interesting fact was brought out in this address that compulsory school attendance has been established for the ages 7 to 14, unless exemption is secured by passing

[1] For the latest statistics of education in South African provinces, see the Rep. Commis. of Educ., 1912–13, Vol. I, pp. 884–885.

an examination in the studies of the fourth grade. From the ages of 17 to 21, boys are obliged to serve in the Active Citizens Force (Defense Act). This leaves the period from 14 to 17 free from all restraints of general discipline or professional guidance, the period when compulsory continuation schools are expected to do their effective work.

Mr. Organ urged that the upper limit exemption for children in the day schools should be raised to the age of 15; that continuation schools should be gradually provided for boys and girls and placed under the central department; and that statutory power should be given local authorities to enforce attendance from the age of 15 to 17.

The institutions of higher education under the central department include the University of the Cape of Good Hope, which is an examining body, a group of seven colleges which prepare students for university degrees, and the South African School of Mines and Technology, situated at Johannesburg. A special commission was appointed to consider the needs and interests of higher education, and the current year has been marked by the issue of the report of that body. This document gives a detailed history of the inception and growth of the colleges and outlines a scheme for their federation in two groups, affiliated respectively to two universities, one in the south and the other in the north. These institutions, if the scheme is adopted, will take the place of the existing university at Cape Town.

CHAPTER XXXVIII.

EDUCATION IN AUSTRALASIA.

CONTENTS.—The Commonwealth of Australia: Current activities—Medical inspection of schools—Secondary education. New Zealand: Evidence of progress—Statistical summary.

AUSTRALIA.

CURRENT ACTIVITIES.

In accordance with the constitution of the Commonwealth of Australia, adopted July 9, 1900, education remains as it was prior to that event, under the independent control of the individual States. Nevertheless, the union has had the effect of exciting friendly emulation in respect to public provision for education, while efforts in this direction during the past decade have been greatly stimulated by the increased influence of the Labor Party both in political and social affairs.

The reports of commissions recently appointed in New South Wales and in the neighboring colony of New Zealand, to investigate education in foreign countries and advise as to needed reforms at home, excited attention throughout Australia, and have already resulted in laws or practical measures for the improvement of the school systems. Current educational movements in Australia, therefore, as set forth in official reports, offer many points of interest.

Among important recent developments are those pertaining to administrative services. In Victoria the education act of 1910 provided for a council of education, acting as an advisory board to the minister. In accordance with the advice of the council a system of inspection of registered private schools was adopted the present year. All the important private schools are registered, by reason of the privilege accorded to their teachers of securing a place on the State list, if they have obtained State certificates. This they generally do, as it enables them to offer pupils as candidates for public scholarships. In this way Victoria preserves the "liberty of teaching," while at the same time guarding against the increase of irresponsible teachers.

In South Australia "boards of advice" have been founded in the school districts, half the members of which are elected by the parents. Thus the lively interest of citizens is awakened in the school conditions and at the same time cordial sympathies grow up between them and the officers and teachers engaged in the work. Current reports

abound in illustrations of the practical activities of these boards. Their attention is drawn to details that generally escape a purely official board. The chairman of one district board names the following among many conditions that have been reported for attention: Need of new piping for the cooking stove in the teacher's residence and for the heating stove in the classroom; the provision of a room for the private use of the head teacher; the action of a head teacher in inducing the parents of the school children to contribute half the cost toward installing wire doors and screens for windows, thus preventing flies from entering the classroom; the want of sanitary conditions, especially in the outbuildings of the school.

By the extension of the upper age limit of compulsory attendance from 12 to 14 years of age in Queensland (act of 1910), the period has been made uniform (ages 6 to 14) in all the States, excepting Western Australia and Tasmania, where it is 7 to 13. The necessity of enforcing the compulsory laws has led to various expedients for reaching school children in country districts. Among these expedients are house-to-house schools and itinerant teachers, conveyance of children to central schools, and subsidized private or home schools. The compulsory laws are in a measure also the cause of the general disposition to improve school buildings. The current reports contain many illustrations showing in contrast the old buildings and the modern ones by which they are replaced. This change is taking place not in cities only, but in rural districts as well. Among new types of school buildings in New South Wales are portable classrooms, which are built in sections and erected temporarily to relieve congestion in large schools, and buildings for small country schools in exceptionally hot districts, specially designed with verandas on all sides but the south.

The compulsory requirements have stimulated movements for extending elementary education by means of higher classes and continuation schools to which is imparted a vocational tendency.

The evening schools in New South Wales were recently organized as vocational schools with a two years' course, and placed under the charge of Mr. S. H. Smith, who is known both in Europe and America as an authority on this subject. In his report for 1913, Mr. Smith states that, out of a total of 5,829 pupils, only 373 completed the course, and of these more than one-half came from one school. He regards the results as disappointing, but expresses the hope of improvement in the future, in view of the increased efforts to keep the pupils for the full term and also from the fact that a large proportion of the pupils recently enrolled have come directly from day-school classes. He says:

> It is easier to get in touch, for his educational good, with the lad who has just left day school than with one who has just become subject to the contaminating influences of street companionship for three or four months.

In his opinion, however, there is only one effective solution of the problem; namely, that of compulsory attendance upon the continuation school. He urges that—

> The State should step in to regulate the relation of the youth to his employer (just as, in an earlier epoch, trade guilds regulated the relationship of apprentice and master), by forbidding the employment of young people for such hours as shall make it impracticable for them to continue their education. * * * To the Parliament of the neighboring State of Queensland belongs credit of passing the first Australian compulsory continuation school attendance act.

MEDICAL INSPECTION OF SCHOOLS.

Every State of the Commonwealth has provided for the medical inspection and supervision of children attending public schools; the majority have organized a special service for this matter in the education department.

The work was begun in Tasmania in 1906 with the examination of 1,200 children attending schools in the town of Hobart. Individual examinations of school children have since been made on a more or less extensive scale in the different States, and Australia, therefore, has an accumulated mass of records which are of value to experts in vital statistics as well as to directors of health service. In Western Australia by an act of 1911, medical school inspection was committed to officers of the health department; in South Australia provision was made in the estimates of 1913 for a special force, comprising a physician, a dentist, and two trained nurses to be employed entirely in the schools.

With respect to this service, the minister of public instruction in New South Wales, in his latest report, says:

> One of the most important educational developments during 1913 was the reorganization of the scheme of school medical inspection, so as to embrace every pupil in the State whose parents desired such medical inspection of their children. Toward the middle of the year it was decided to dispense with the services of the part-time doctors previously employed by the department and to increase the medical staff so as to permit every pupil attending the public schools being examined at least twice during school life, that is, between the ages of 6 and 14. Later in the year medical inspection was extended to such private schools as made application. With few exceptions, all school pupils in the State will now be subjected to medical inspection. It is estimated that, approximately, out of 310,000 children attending school, 300,000 will be subjected to medical inspection. The medical staff of the department is now a self-contained branch, under the control of Dr. C. S. Willis, and the staff consists of 10 doctors and 5 nurses.

A bacteriological laboratory was established for this department in 1913, and it was proposed to institute a traveling hospital during the present year, in order that medical treatment may be extended to pupils in outlying districts that are beyond the reach of either hospital or doctor, and to establish a central dental clinic at which county and city pupils may receive needed treatment.

Among auxiliary agencies growing out of the medical service are systematic courses of instruction in anatomy, physiology, and hygiene given at the Women's Training College, Sydney; the following up of particular cases by nurses at the homes of children; and lectures to the senior girls in public schools on the care of children, home nursing, hygiene, etc. Similar extensions of the service are reported from Victoria and Queensland.

An important outcome of the medical service is the increased regard to conditions that promote health. This is indicated by the provision of open-air schools, city playgrounds for children, and camp schools for city boys.

The minister of public instruction for Victoria reports that two open-air pavilions have already been constructed and two others are in course of erection, all at different centers. A site has also been purchased for an open-air school at Blackburn, intended for underfed children. They will be selected from the poorer industrial suburbs and recommended for admission by medical officers.

At Hobart, Tasmania, two open-air classrooms were opened in 1913. The minister of education says with respect to them:

> The cost is less than one-third of the ordinary classroom. The buildings are of wood and, in other States, both teachers and pupils have expressed a preference for the open-air school over the more solid structure, both for winter and summer use. The side walls are built up to a height of 3 feet 6 inches and are fitted with canvas slides working on ball bearings; these can be easily opened or closed at will. Should the building prove too cold for winter use, it will be utilized as a weather shed.

SECONDARY EDUCATION.

While primary education and university education are under Government control in all the States of Australia, secondary schools have been largely left to private agencies. There is, however, a noticeable tendency in all the States to extend Government supervision to schools of this class and to bring them within the reach of the people at large by means of scholarship funds. Interesting experiments in this department of education are reported as follows: In New South Wales a leaving examination has been instituted to mark the completion of the four years' secondary course. In connection with this measure the university amendment act of 1912 provided for the allotment of the university senate in 1913 of 100 "exhibitions" to be awarded on the results of the leaving certificate examination. The examination was held November 24, 1913, and the successful students took up their university studies at the beginning of the fall term in 1914. This event marks the "definite linking up of the public school system with the university."

In Victoria the continuation schools have been converted into district high schools, and with the agricultural high schools offer very

complete provision for the continued education of children in the rural districts. The official course of study for these schools is arranged for a period of four years, which may be extended if necessary. For the first two years the pupils pursue the same studies, except those at the industrial schools. At the end of the two years the common course is replaced by four special courses, as follows:

(1) A preparatory professional course for pupils intending to proceed to university studies, to enter the teaching profession, or to obtain a sound general education; (2) an agricultural course to be taken in agricultural high schools; (3) a commercial course for pupils desirous of entering upon commercial pursuits; and (4) a domestic arts course, designed to give girls a thorough training in domestic duties and in the management of the home, as well as a good general education.

For admission to the high schools pupils must be not less than 12 years of age and must possess the qualifying certificate showing completion of the primary course; a declaration must also be made by the parents of candidates to the effect that they will keep their children in school through the four years of the course.

In Queensland an important experiment was inaugurated in 1912 when free high schools were opened in six centers. The curriculum for the schools, prepared in consultation with university professors, comprises three courses of study, each of four years' duration. The general course will lead up to the university; the two remaining courses are characterized as commercial and domestic, the latter having special reference to the needs of young women. Queensland also makes provision for free secondary education by subsidies to private "grammar schools," supplemented by district scholarships. Under this arrangement each one of the 10 grammar schools offers free education for 50 pupils and submits to Government inspection.

The free high schools were established in centers not provided with grammar schools, but the demand for similar provision has become general, and is persistently urged in Brisbane. As a consequence the question of secondary education and its relation to the State is vigorously discussed. The secretary for education expresses the opinion that at present the Government is not prepared to meet the necessary expenditure for the general provision of free high schools.

In Tasmania arrangements have been made by which pupils in the primary schools who pass a required test may be admitted to the high school without payment of fees; the minister of education advises that scholarship funds carrying a living allowance be provided as a means of bringing the opportunity thus offered within the reach of promising pupils in the country schools who, without such aid, could not continue their education.

NEW ZEALAND.

EVIDENCES OF PROGRESS.

The latest report of the minister of education shows that New Zealand is maintaining in every respect the high standards and the progressive spirit that have long characterized the educational work of that colony. The enrollment in public primary schools for 1913 was 169,492, an increase of 3.5 per cent over the previous year and equivalent to 16.3 per cent of the population, exclusive of aborigines. On this enrollment an average attendance of 89.2 per cent was maintained, which places New Zealand in the very first rank in respect to this important particular. The enrollment in private primary schools and lower departments of secondary schools would raise the total enrollment to 17.7 per cent of the population and would not materially lower the ratio of attendance, since the private schools are also under State inspection and receive subsidies from the public treasury based upon the inspectors' reports.

With regard to the public schools, it is noticeable that a comparatively large proportion of the pupils reach the sixth grade. The compulsory school age is from 7 to 14, but children can be admitted into school at 5 years of age. The statistics show that the largest proportion of the pupils attending school at any given time are 8 or 9 years of age. For 1913, the attendance of children of the former age was 20,269, nearly all of whom were either in standards 1 or 2; but the total number in the fifth standard was 15,435, and in the sixth standard 10,373, the latter being about half the number in the second standard. Not only is the compulsory law well enforced, but children under 14 can not get exemption from school attendance unless they are able to pass certain examinations; hence there is every inducement for them to remain in school, whether they are pupils of public or private institutions.

From tables showing the number of pupils to a teacher in the several grades of the primary schools, it appears that in the lowest grade (preparatory or infants) each teacher has a little over 9 pupils; in grades 2 and 3 (single-teacher schools), 23 pupils; grades 4 to 10 (two or more teachers), 33.8 pupils; grades 7 to 10 (over 200, with six or more teachers), 47.6; in all schools, 32.8. In these estimates two pupil teachers are counted as equivalent to one adult teacher. It is believed that the new scale of staffing adopted by the education act of 1914 will tend to diminish still further the evil of overcrowded classes.

Children who live remote from schools are furnished with conveyance at public expense, either by rail, by water, or by carriage road, and where this means fails, children are boarded at public expense near

the school. The amount paid by the State to education boards for these purposes in 1913–14 was £18,837 ($94,185).

Attention is called to the fact that in 1913, of 5,190 teachers employed, 963 were men and 3,227 women. In the smallest rural schools (1 to 15 pupils) the proportion was 349 women to 100 men. On this subject the report says:

> The large proportion of female teachers to males in schools of 1 to 15 pupils is readily explained, the maximum salary (£120) in these schools being too small to attract male teachers. It may be fairly argued, perhaps, that in districts not too remote women are more suitable than men for small schools of this type. There is, at all events, a sufficient number of other positions to absorb all the men in the profession at present.

Medical inspection of schools and school children was established in 1912 under the joint control of the education department and the department of public health. Four medical inspectors were appointed, one being stationed at each of the four chief centers of the colony. The system of inspection adopted at the outset has proved satisfactory, and, for the present at least, it is not thought necessary to examine each child more than twice, or at the most three times, in the course of his primary school life, except in cases of suspected or proved abnormality. Regular inspection is made of the children averaging 10 to 11 years of age. As a rule, this is done by the medical inspector in any school on the first day of his visit; on the second day he examines special cases from other classes brought under his notice by the head teacher or selected by himself.

Instruction in the medical inspection of children is given to the students of the training colleges (normal schools), and, as opportunity occurs, to teachers already at work in the schools; so that in course of time the detection of certain physical defects in the scholars will not be left to the experts.

Figures compiled from the weights and heights of some fifteen thousand children returned by school teachers last year seem to indicate that the average New Zealand child is heavier and taller than the average English child of the same age.

The medical inspectors also report on the schools in respect of the lighting, heating, ventilation, cleanliness, etc., and there are many instances in which suggested improvements involving no expenditure have been effected. Emphasis is placed on the value of fresh air, and teachers are encouraged to teach out of doors or in open shelters whenever it is possible.

The expenditure on medical inspection for the financial year ended March 31, 1914, was £4,183.

The report shows a steady increase in the provision for manual and technical instruction in the colony. Of the elementary schools, 70 per cent have equipment for these branches, including in the

higher standards woodwork, cookery, laundry work, and dressmaking for girls. Classes in these subjects are managed on the central system and by special instructors. In the larger centers, manual-training schools are provided, to which the classes come from the regular schools. In the smaller centers the training is given in rooms assigned for the purpose in one of the regular school buildings. Attention is called to the great interest manifested in instruction on subjects bearing upon home life. The want of properly trained teachers for the domestic subjects, noted in previous reports, has been nearly overcome as a result of the establishment of full courses in home science at the Otago University and the provision, by the Government, of special scholarship funds to students desiring to avail themselves of the opportunity.

In the rural districts there is noticeable increase in the number of schools providing instruction relating to rural occupations. In the case of 10 out of 13 education districts, this work is supervised by itinerant teachers having a special knowledge of agriculture. The course of instruction includes both experimental and observational work, and in some districts elementary dairy work. This movement is fostered by school committees, agricultural and rural associations, and members of the farming communities generally. In addition to several prizes offered for competition, contributions in money to the value of about $2,500 were made to education boards during the year. The Government doubles every such contribution. Practical instruction of the same general nature as that given in the elementary schools is extended to the secondary schools receiving Government grants.

The Government gives liberal support to classes and schools for special technical instruction, apportioning its bounty to the amount contributed locally for the same purpose.

In addition to the provision of centers for technical instruction, the colony has six completely organized technical colleges, including the Dunedin School of Art, which is maintained in the interests of industries requiring the work of artists as well as that of skilled artisans.

New Zealand has been very active in promoting the education of the native population. For the year under review there were 107 native schools, in which 4,000 children of both sexes were instructed, and the ratio of average attendance to enrollment was maintained at 85.7 per cent. The attendance of native pupils at secondary and mission schools would raise to 5,182 the number of Maori children receiving the benefits of English education.

The policy of fostering secondary education by subsidies to private schools and by scholarship funds, enabling promising pupils of limited means to prolong their education, is continued. In 1913 there

were 30 secondary schools, with 4,592 nonpaying students in a total enrollment of 5,803. The following tables indicate the present scope of the system under Government supervision and its extension during the half decade, 1908–1913:

Comparison of the number of pupils in the several branches of education in the years 1908 and 1913, respectively.

	Actual numbers.		Number per 10,000 of population.	
	1908	1913	1908	1913
Population	1,008,373	1,134,506	.....	.....
I. Primary (including public and native schools, all receiving free tuition)	148,180	172,390	1,467	1,526
II. Industrial and special schools	.....	809	.....	7
III. Secondary (including secondary schools, secondary departments of district high schools, technical day schools, and Maori secondary schools)	7,742	9,959	77	88
IV. Continuation and technical (excluding school classes)	13,051	15,206	129	134
V. University, higher technical, and training colleges	1,711	2,371	17	21
Private schools not included above, principally primary	18,367	19,428	182	172
Total under instruction	189,051	220,163	1,872	1,948
VI. Total under instruction higher than primary (III, IV, and V above)	22,504	27,536	223	244
Number of latter (VI) receiving free tuition	7,959	12,574	79	111

Expenditure on education in New Zealand in 1908–9 and 1913–14.

[Figures given in every case to the nearest £1,000.]

	1908–9 [1]	1913–14
Population (including Maoris, but excluding Cook and other Pacific Islands)	1,008,373	1,134,506
BRANCH OF EDUCATION.		
A. (1) Primary (including native schools and training colleges)	£756,000	£1,013,000
(2) Secondary (including secondary schools and secondary departments of district high schools)	74,000	157,000
(3) Continuation and technical	59,000	42,000
(4) Higher education (including university and higher technical)	28,000	63,000
Total A (1–4)	917,000	1,275,000
B. Industrial schools	39,000	45,000
C. Special schools (deaf and blind and home for backward children)	17,000	7,000
D. Superannuation, medical inspection, and miscellaneous	14,000	33,000
Total for A, B, C, D	987,000	1,360,000
United States equivalent	$4,796,820	$6,609,600

[1] Exclusive of income from reserves.

According to information received from Dr. Mark Cohen, editor of the Dunedin Evening Star, one of the most notable events of the present year in New Zealand was the retirement on pension of Mr. George Hogben, who for many years filled the important post of inspector general of schools. In recognition of his invaluable services the Order of the Companionship of St. Michael and St. George was conferred upon him at the beginning of the year by the King of England. Among the reforms accomplished through the influence

and efforts of Mr. Hogben are noted the adoption of the liberal school of salaries for teachers, the establishment of the teachers' superannuation fund, more flexible grading and freedom of classification, increased provision for the training of teachers, extension of technical education, the adoption of free secondary education, provision for physical training and medical inspection of school children, and the introduction of a special rural course of instruction in the district high schools.

CHAPTER XXXIX.

EVENTS OF INTERNATIONAL INTEREST.

CONTENTS.—Educational itineraries through States of South America—The Fourth International Conference on the Blind—Notable events at Oxford and Edinburgh—The Napier celebration.

ITINERARY FOR CULTURAL PURPOSES.

During the year an itinerary was arranged by the Pan American Division of the Association for International Conciliation, intended to promote closer intellectual relations between the United States and the States visited. The party, which was in charge of Dr. Harry Erwin Bard, director of the division, consisted of 11 men, all of whom had paid special attention to history and economics, and were familiar with the Spanish language. With three exceptions, they had, also, acquired appreciation of Spanish conditions by previous residence either in South America, Spain, or among Spanish-speaking people in the United States, and thus were insured a cordial reception in the different States visited. It was everywhere recognized by the hosts in South America that the purpose in view could best be promoted by the study of educational and social institutions. Consequently, the visitors were shown all classes of schools from the most elementary to the highest, as well as asylums, hospitals, business houses, theaters, art museums, etc., in order that they might observe all characteristic agencies for the promotion either of knowledge or social welfare.

The itinerary occupied the time from May 30 to August 11, or 74 days, 44 of which were spent at sea. It extended from Rio de Janeiro, on the eastern coast of South America, to Santiago de Chile, on the west, and included every city of note on both coasts. On account of the many centers of interest visited, it has been impossible for members of the party to do more than record their general impressions. Everywhere they were struck with the fine buildings provided for schools and other public institutions, the equipments of the higher scientific schools, and the extensive plants for technical and agricultural instruction. In several cities their attention was called to provision for welfare activities which engage the efforts of local authorities as well as those of private philanthropy. Special mention is made in their reports of the Maternity Hospital de Climerio de Oliveira, at Bahia, Brazil, which is managed in close relation with the

medical school of that city; the Hotel for Immigrants, at Buenos Aires, which is under Government supervision, and the Hospital of San Salvador and the Providencia Home for Orphans, both at Santiago de Chile.

Although the main object of this carefully planned visit was kept in view, its economic bearings were not entirely overlooked. One member of the party had been specially charged to observe the conditions affecting trade relations with the United States, and their bearing upon courses of instruction in the high schools of this country. In a brief report on this subject he says:

> The most important conclusion of our visit is the great value and importance of the study of Spanish in our high schools, and, as soon as possible, in our elementary schools.
>
> The 100,000,000 people of the United States will have more and more to do with the 80,000,000 people in Spanish America in business, science, arts, literature, and politics. The opening of the Panama Canal and the great European war have tended to bring the two great peoples much closer together. They are looking to us for credits in the financial world, manufactured articles, raw products, machinery, books, just as they have looked in the past for political examples.
>
> They have been reaching out toward us much more than we toward them. They offer their high-school pupils English for three or more years in Brazil, Argentina, and Chile. They send an increasingly larger percentage of their best students to continue their education in the United States. They everywhere teach more of the history and geography of the United States than we teach of Spanish America, so that the average Latin American is not so ignorant of the United States as we are of his country. What has been said of Spanish applies also to the study of Portuguese—the mother tongue of 20,000,000 Brazilians. * * * Along with this knowledge of Spanish there must be training in geography, history, manners, customs, literature, and art of our Latin American brethren.
>
> When a person knows these he will be in an appreciative and sympathetic attitude. He will then be *muy simpatico*.[1]

STUDENT ITINERARY IN SOUTH AMERICA.

Among the events of international importance which the outbreak of war in Europe caused to be indefinitely postponed was the fourth international congress of American students, called at Santiago, Chile, for the first week in September. For many reasons it seemed desirable that the delegation of young men from the United States to this congress should be selected with great care. The Commissioner of Education was accordingly asked to interest himself in the matter, and a fund for traveling expenses was subscribed by the Carnegie Endowment for International Peace and placed in his hands.

Of six selected candidates [2] five accepted the appointment and had started on their journey when news of the postponement of the con-

[1] Report made to the board of education of New York City by William T. Morrey, president of the high-school teachers' association.

[2] The six delegates selected were as follows: Mr. Arthur C. Burch, of Northwestern University; Mr. Nemours H. Clement, of Tulane University of Louisiana; Mr. Joseph F. Gunster, of the Catholic University of America; Mr. John Heath, of Leland Stanford Junior University; Mr. Wendell E. Phillips, of Cornell University; Mr. Adelbert F. Smithers, of Columbia University.

gress was received at Washington. Four of the delegates were beyond immediate communication at the time, and it was decided to forward them instructions to proceed on a tour of observation with the general purpose of promoting fraternal relations with student bodies in the centers visited.

The three delegates who received their new instructions at Montevideo subsequently forwarded to the Commissioner of Education a report, from which the following particulars are derived:

Owing to difficulties occasioned by the European war, the fourth international congress of American students which was to have been held in Santiago, Chile, during September, has been postponed, probably until April of next year. We were unable even to reach Chile, because of the complete demoralization of transportation facilities during the time in question. The news of the postponement did not reach us until our arrival at Montevideo, where we were received by the director of the Oficina Internacional Universitaria Americana and invited to remain as their guests. We gladly accepted, and throughout our stay in the progressive Uruguayan capital we were accorded the most distinguished hospitality and courtesy, even the President of the Republic and the minister of foreign affairs being so kind as to receive us. In Buenos Aires and La Plata our reception was also of the utmost cordiality, on the part of the university students personally and through their organizations; on the part of the educational authorities; and on the part of the American residents. The unflagging attentions of the students especially made it possible for us to become well acquainted with the university life, organizations, and current questions of interest. * * *

In Rio de Janeiro, our last stopping place, the shortness of our stay prevented us from accomplishing all that we wished, but as far as we could go we encountered the same hospitality and courtesy and the same desire to cooperate that was evident everywhere else.

The cordial attentions everywhere extended to the delegates were interpreted by them as indicating a general belief that the present is a time of great importance for future relations with the United States. On this point the report says:

In the three countries that we visited there is a general realization of the fact that the present is the opportunity of the United States in South America. Furthermore, there is a feeling of expectation that the United States will take advantage of that opportunity. Some action, more or less vague, but of prime importance, on the part of our country is awaited, and even those who fear it rather than hope for it, consider it inevitable. The people are prepared materially and psychologically for a great development of the intellectual, social, and commercial relations between the two Americas, and a great number are even anxious to lend it their aid.

With regard to unfriendly feeling toward the United States the delegates say:

The exact extent of that feeling can not be measured in a short stay, least of all by those in contact with the whole-hearted cordiality and good fellowship that surrounded us, but nevertheless its existence is undisputed. Quite obviously, this unfriendliness to the United States is not evenly distributed and is far from universal, especially among the thinking classes; but those few who are unfriendly have deep-rooted antipathies and they play skillfully upon student patriotism and popular prejudice. * * * All depend for the success of their pleas on the suspicious fear of the possible imperialism of a stronger neighbor and on the dislike attendant upon that fear.

Among the causes of these suspicions and apprehensions are noted the prevailing ignorance in the United States as to South American conditions, indifference to their social amenities and national achievements; and the widely distributed misinterpretations of the Pan American policy of the Government of the United States.

The report dwells at length on the means of correcting the false notions on the part of the different peoples interested, which in South America should aim "to destroy a misconception," and in the United States "to create a positive impression."

Among the means suggested for accomplishing this purpose the report emphasizes the following:

1. The establishment of a publicity bureau whose task shall be the popular dissemination of information through the newspapers and the general monthly periodicals. * * * It could carry on the same propaganda of education, with an even wider audience, by means of well-prepared, well-chosen motion-picture films.

2. The exchange of professors and students. Since these students should not only learn from the country to which they go, but also teach it concerning the country from which they proceed, they should preferably be what we term "graduate students."

3. General courses on Latin America in schools and universities and especially the teaching of Spanish and Portuguese as two of the great modern languages of culture and not merely as commercial subjects to be studied in conjunction with bookkeeping and stenography, as is often done. Least of all should they be placed among the "extra" languages for which no credit is given.

4. The exchange of student periodicals. While our undergraduate newspapers and magazines could not receive anything similar in return, they would serve to illustrate phases of our college life which have practically no counterpart in Latin America. The professional school reviews, on the other hand, would have many excellent magazines with which to exchange. * * * In South America the Oficina Internacional Universitaria Americana would be the ideal center for such work, and its directors have expressed to us their hearty desire to cooperate in any movement for its accomplishment. * * *

5. The translation of university catalogues and prospectuses in terms intelligible to the country in which they are to be distributed.

6. Cooperation with the Oficina Internacional Universitaria Americana. This headquarters of the international American student federation was established at Montevideo and was placed under the management of the Uruguayan University men by vote of the Second Pan American Congress of Students, held in Buenos Aires in 1910. Its scope was broadened by the third congress, which took place in Lima in 1912, and a fixed sum to be paid annually for its maintenance by all the Governments represented was decided upon. * * * Because of the high character and standing of those who have been and are connected with its management, the Oficina enjoys considerable prestige and, among other privileges, has been granted the postal and telegraph frank by several countries. Under its present able directors especially, it affords boundless opportunities for developing friendly intercourse among the students of the United States and the students of Latin America.

The report closes with special mention of officials and educators whose kindness and hospitality made the trip both agreeable and instructive. The list, which is extensive, includes the diplomatic and consular representatives of the United States in the different

countries visited, the student federation at Rio de Janeiro and La Plata, representatives of the Young Men's Christian Associations at all the cities visited, and the officers of the Oficina Internacional Universitaria Americana at Montevideo.

The report is signed by Mr. Adelbert F. Smithers, delegate representing Columbia University, New York, and Mr. Wendell E. Phillips, representing Cornell University.

CONFERENCE ON THE BLIND.

The Fourth International Conference on the Blind was held in London June 18 to 24. High officials of the state and church were included among its officers, and the arrangements for delegates were in charge of a very efficient executive committee.

The subject of the conference was illustrated by an exposition, including articles made by the blind, books, apparatus, etc., for their use, objects of historical interest, and representations of various handicrafts in which the blind are employed. Many entertainments were given in the interest of visitors, including a garden party at the Royal Normal College for the Blind, Upper Norwood; a play by a blind author performed by blind actors; organ recitals and concerts by blind musicians.

A full report of the conference, with the exhibition catalogue, was published for gratuitous distribution to subscribers.[1]

NOTABLE EVENTS AT OXFORD AND EDINBURGH.

At the septenary celebration of the birth of Roger Bacon and the tercentenary celebration of the invention of logarithms, the Bureau of Education was represented by Prof. David Eugene Smith, of Teachers College, Columbia University, who has submitted the following reports of those notable events:

THE BACON SEPTENARY CELEBRATION.

The Bacon celebration was held at Oxford on June 10, 1914, and was attended by a number of distinguished scholars from various leading countries. A statue of Bacon, the work of the English sculptor, Mr. Hope-Pinker, was presented to the university on behalf of the delegates and visitors by Sir Archibald Geikie, F. R. S., and was accepted by Lord Curzon, chancellor of the university. An oration was then delivered in Latin by Prof. A. D. Godley. Following these exercises a luncheon was given to the delegates at Merton College and in the afternoon a garden party was given in the grounds of Wadham College.

One of the most interesting features of the celebration was the noteworthy exhibit of Bacon manuscripts in the Bodleian Library. This was prepared under the supervision of Mr. Madan, Bodley's librarian, who was very attentive to the interests of the visiting delegates.

[1] Additional congresses which had been announced for the summer and fall were given up on account of the war. Among the number was the Fourth International Congress on Home Education, which was to have been held at Philadelphia, Sept. 22–29.

A memorial volume was prepared under the editorship of Prof. A. G. Little and was issued by the Oxford press on the day of the celebration. This contains the following articles:

1. On Bacon's Life and Works, by A. G. Little, M. A.
2. Der Einfluss des Robert Grosseteste auf die wissenschaftliche Richtung des Roger Bacon, by Dr. Ludwig Baur.
3. La Place de Roger Bacon parmi les Philosophes du XIII[e] siecle, by François Picavet.
4. Roger Bacon and the Latin Vulgate, by Cardinal Gasquet.
5. Roger Bacon and Philology, by Dr. S. A. Hirsch.
6. The Place of Roger Bacon in the History of Mathematics, by Dr. David Eugene Smith.
7. Roger Bacon und seine Verdienste um die Optik, by Dr. Eilhard Wiedemann.
8. Roger Bacon's Lehre von der sinnlichen Spezies und vom Sehvorgange, by Dr. Sebastian Vogl.
9. Roger Bacon's Art des wissenschaftlichen Arbeitens, dargestellt nach seiner Schrift *De Speculis*, by Dr. J. Würschmidt.
10. Roger Bacon et l'Horreur du Vide, by Pierre Duhem.
11. Roger Bacon: His relations to Alchemy and Chemistry, by M. M. Pattison Muir.
12. Roger Bacon and Gunpowder, by Col. H. W. L. Hime.
13. Roger Bacon and Medicine, by E. Whitington.
14. Roger Bacon in English Literature, by Sir John Edwin Sandys.

THE NAPIER CELEBRATION.

The Napier celebration of the three hundredth anniversary of the invention of logarithms was held at Edinburgh on July 24–28, 1914. Over 300 visitors attended the meetings, including delegates from all parts of the world. The ceremonies opened under the presidency of the lord provost of Edinburgh, and an address was delivered by Lord Moulton, one of England's best-known jurists. Lord Moulton applied his great legal talent in tracing out, from Napier's works, the probable reason for preparing only a logarithmic table of sines, and his probable methods of computing. Brief addresses of an impromptu character were delivered by four of the delegates, Profs. Andoyer and D'Ocagne of Paris, Smith of New York, and Bauschinger of Strassburg.

On Saturday morning, July 25, the first session was held under the presidency of Prof. Hobson, of Cambridge. The presidents of the subsequent sessions were Prof. Smith of New York, Dr. J. W. L. Glaisher of Cambridge, and Maj. P. A. MacMahon of London. A list of the papers read at the various sessions and the names of their authors is appended.

On Friday evening a reception was given by the lord provost and council of Edinburgh, followed by a concert. On Saturday afternoon a garden party was held at the ancient seat of the Napier family, Merchiston Castle, the visitors being permitted to see the room in which Napier worked out the first logarithms. An informal reception was given on Saturday evening by the committee in charge of the celebration, and a farewell reception was given on Monday afternoon by the Royal Society of Edinburgh. A special memorial service was held at St. Giles's Cathedral on Sunday.

Among the interesting features of the celebration was an exhibit of Napieriana and of calculating machines and devices of various kinds, an elaborate catalogue of which was prepared by Mr. E. M. Horsburgh.

LIST OF PAPERS READ AT THE SESSIONS OF THE NAPIER CELEBRATION.

Dr. J. W. L. Glaisher, of Cambridge: "The work of Napier."

Dr. G. Vacca, of Rome: "The first Napierian logarithm before Napier." (Extract translated and read by Dr. C. G. Knott, secretary of the Royal Society of Edinburgh.)

Prof. G. A. Gibson, of Glasgow: "On the transition from Napier's to Briggs's logarithms."

Prof. D. E. Smith, of New York: "Laws of exponents in the works of the sixteenth century."

Lieut. Salih Mourad, of Constantinople: "On the introduction of logarithms into Turkey."

Prof. F. Cajori, of Colorado Springs: "Algebra in Napier's day, and alleged prior inventions of logarithms."

Dr. D. M. G. Sommerville, of St. Andrews: "On Napier's rules and trigonometrically equivalent polygons, with extension to non-Euclidean space."

Prof. H. Andoyer, of Paris: "On the history and method of construction of tables."

Prof. M. d'Ocagne, of Paris: "Communications relating to the history of calculating machines and to the development of nomography."

Mrs. Emma Gifford, of Chard: "On a recent table of sines."

Dr. J. R. Milne, of Edinburgh: "On the arrangement of tables."

Mr. H. S. Gay, of Shamokin: "On a convenient formula for determining the angle, given the sine or cosine."

Mr. J. C. Fergusson, of Birmingham: "On the percentage unit of measuring angles."

Mr. W. Schooling, of London: "On the calculation of logarithms."

Dr. A. Hutchison, of Cambridge: "On graphic methods and on the use of the slide rule in crystallography."

Dr. W. F. Sheppard, of Sutton: "On the constructing of tables."

In the absence of their authors, a few other papers were read by title.

The papers have been published under the editorship of Dr. C. G. Knott, to whose efforts the success of the celebration was largely due.

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